

JAN 14 1911

Containing a Window Lighting Supplement

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JANUARY, 1911

SELLING ELECTRICITY

The Magazine of Electrical Progress



Sell to Your Competitor

The best advertisement for electric light and electric signs is a "Cook With Gas" sign over your competitor's building.

It proves the value of your service when the gas man employs it to get business.

We have designed a very popular "Cook With Gas" sign as shown herewith. It takes 193 lamps on each face and may be single or double-faced.

A flasher runs the flames from the torches and can also flash the lettering if desired.

If the gas man is your competitor, get out and sell him this sign. He'll buy.

If you are running a combination gas-electric property, erect one for the gas department. It will help to sell gas ranges.

This is a standard sign and can be finished on short notice. For quick action address

Valentine Electric Sign Co.,
ATLANTIC CITY, NEW JERSEY

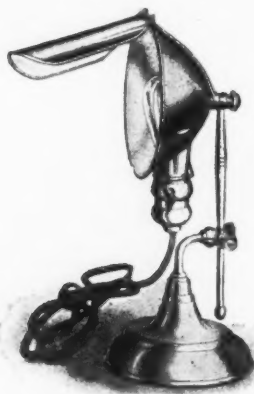
PatCo

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The Lyhne Lamp

For Universal Utility

Simple Effective
Handsome Durable
Inexpensive



The Lyhne Lamp is the perfect medium for the distribution of electric light, wherever a desk or table lamp is required.

A focus of 360 degrees.

Brush Brass finish. Each lamp is equipped with six feet of cord and attachment plug.

Banks Offices Homes
Workshops Draughting-rooms
Physicians Dentists

All are ready to use Lyhne Lamps.

Ask us why

Send for prices and discounts

The Wall-Win Co.

Manufacturers of Electric Signs and
Distributors of Electric Specialties.

27 William St., New York



**Rapidity of Turning Out
Toast**

**Excellence and Economy of
Operating**

Retail price of \$3.75

These are features which make attractive to the possible user the

“American” Electric Upright Toaster

It is a small, light, attractive device for use on the dining table, where the toast can be made and served while hot and fresh.

Order a case lot of toasters. A case lot contains twenty-four and with it you will receive window display cards. You will also be provided, if you like, with advertising circulars.

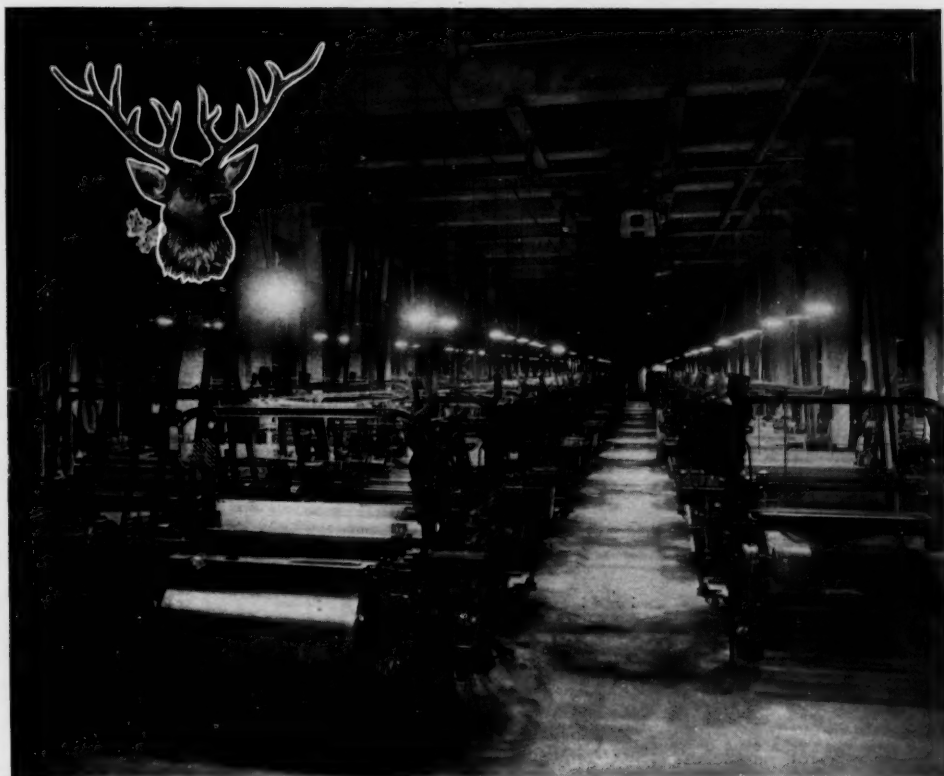
By calling the attention of your customer to this new, attractive and useful device, the sales resulting will be a source of profit for you.

American Heater Co.

Oldest and Largest Exclusive Makers
Detroit, U. S. A.

misplaced

Perfect Buckeye Illumination in Doherty Mill



Other things being equal, you will buy lamps of the manufacturer who gives you the most valuable service.

We have spent years of time and a good many thousand dollars in building up an organization of service experts. The value of this organization to you may be judged by its successes elsewhere. An example of such success is the lighting of the mill of the Henry Doherty Silk Company of Paterson, N. J., the largest broad silk weavers in the world. Says the Treasurer of this concern:

"In our long experience in the manufacture of silk, we never had any better light."

The service we render direct to large customers, such as industrial plants, we are glad to offer co-operatively to central stations, engineers and electrical contractors.

The Buckeye Electric Company

Cleveland, Ohio
Chicago, Pittsburg
Boston, Dallas

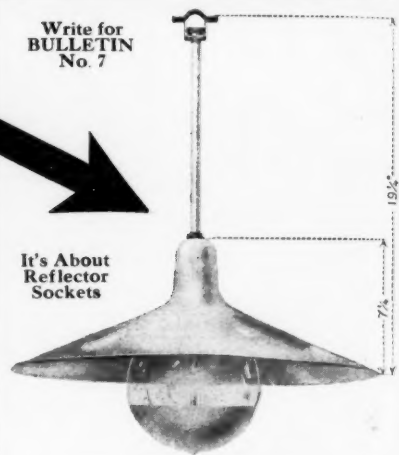
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In writing to advertisers, mention "Selling Electricity"

BENJAMIN REFLECTOR SOCKETS

Write for
BULLETIN
No. 7

It's About
Reflector
Sockets



Catalogue No. 6141
500-WATT MAZDA LAMP

With one-piece deeply hooded enameled steel reflector and a properly related one-piece *large base socket*.

We also have a comprehensive line of fixtures for short and skirted base lamps. Each is designed with particular regard for the correct relation of lamp filament and reflector surface. You will be glad to know of them.

BENJAMIN ELECTRIC MFG. CO.

Chicago, 120-128 So. Sangamon St.

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The Benjamin Electric, Ltd., 1a Rosebery Ave., London, E. C., England

Benjamin Electric Mfg. Co., 64 York St., Toronto, Ont.

In writing to advertisers, mention "Selling Electricity."

BETTERNESS

is a word we coined to express the all-around superiority of *BANNER LAMPS*. Ever since we put the Banner label on our first Lamp

BETTERNESS

has been our slogan—our creed. No matter how good other people made their lamps, we've always been able to carry the Banner in front of the procession, until today all the world knows that **BANNER BETTERNESS** is the acme of incandescent lamp quality

The BANNER ELECTRIC CO.

Youngstown, Ohio

In writing to advertisers, mention "Selling Electricity."

RatCo



POINTS *of* GREENWOOD SUPERIORITY

EVERY man who buys a sign wants just two things—
he wants it **different** and he wants it **quick**.

The Greenwoods found this out years ago and decided that the secret of sign success—our success and yours—consists in Originality of Design and Prompt Delivery.

The Greenwoods have been artists for generations—therefore, Greenwood signs are original, distinctive, full of character. A modern, smooth-running factory insures promptness and quality in the finished products.

We furnish suggestive sketches that are worked out by Artists Experienced in Designing Practical Signs—Forceful, Appealing Electric Salesman of enduring construction.

AND WE DELIVER ON TIME!

GREENWOOD ADVERTISING CO.
Knoxville, Tenn.

PatCo

In writing to advertisers, mention "Selling Electricity"



HERE are two drug store signs—not expensive—the kind you sell most often. But—is there a drug store in **your** city just like them?

The prescription symbol on the Weaver's sign is a novel touch that **sells goods**. Everybody knows what it means.

The fountain effect is particularly pleasing and eye-compelling. In warm weather it suggests your thirst and the soda fountain takes the profits.

Our artists are always ready to make suggestive sketches—something just fitted for the prospect you have in mind. Explain his business and location and we can help.

AND WE DELIVER ON TIME!

GREENWOOD ADVERTISING CO.
Knoxville, Tenn.

RacCo



A Mile of Jandus Luxolabra,
Washington St., Indianapolis

LUX
OL
LABRA

Our experience in selling Jandus Luxolabra has proved two things:

That Ornamental Street Lighting offers big opportunities to every Central Station, and

That it is worth our while to spend money to assist the Central Station in developing this business.

We are ready to make *you* an interesting co-operative proposition. Write us at once if you are ready to go after this profitable load, and watch this space each month for developments.

The Adams-Bagnall Electric Co.
CLEVELAND, OHIO

New York

Philadelphia

Pittsburg

Chicago

Atlanta

RacCo

In writing to advertisers, mention "Selling Electricity."

NUMBER 6

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Vehicle Battery Points

Where height of battery space permits

"National"

Batteries are supplied with bridges three inches high, giving ample room for all the "mud" which can be deposited during life of plates. Therefore it is necessary to take battery apart only when renewing plates.

These bridges have patented soft rubber tops which cushion the plates from jolts. The active material is less liable to be thrown upon the connectors and jars.

The high bridge with rubber top eliminates washings; means less road trouble, longer life, and lower maintenance cost.

For each class of service there is a "National" Battery of special design.

WRITE TO OUR NEAREST OFFICE FOR
COMPLETE INFORMATION

The United States Light and Heating Co.

GENERAL OFFICE: 30 CHURCH ST., NEW YORK

"Bliss System of Electric Car Lighting" "National" Batteries "Moskowitz
System of Electric Car Lighting"

New York	Buffalo	Chicago	Milwaukee	Cleveland
Boston			San Francisco	

SELLING ELECTRICITY

Edited by FRANK B. RAE, Jr.

EARL E. WHITEHORNE, Managing Editor

Canvassing by Telephone*

The Story of a New Business Campaign by Telephone and Its Results

By T. I. Jones, General Sales Agent, Edison Electric Illuminating Co., Brooklyn, N. Y.

It is generally acknowledged that less than 20 per cent of the calls made by an agent on prospective customers result in the closing of a contract. In canvassing telephone users we start at once with a preferred list of people who can at least afford to pay \$2.50 per month for telephone service (for

age small residence consumer's bill for electric lighting at our present rates and lamp efficiency is less than \$3.00 per month. This briefly is the theory which the writer would have you bear in mind while considering the value of a telephone user as a prospect for the lighting solicitor.

If we agree that the telephone user in a community represents a good type of electric light prospect the next question is how and when shall we approach him? Surely there is no one here who has not had reports from his salesmen that Mr. So and So is not in—cannot be seen—has an important engagement, etc., this resulting in a large number of calls before the first word is spoken. On the other hand, have you ever called many times on the telephone and, except for a report of "busy" or "don't answer," been unsuccessful in reaching the party called for? Have you not often answered a call on the telephone both at your home and at your office on a subject which you would not have discussed if the call had been made in person?

Therefore, why should we not call upon the telephone subscriber through the medium of his telephone?

Regarding the expense involved, the call by telephone has very much in its favor. How many salesmen average 50 calls a day for example? Yet this number can be easily made within four hours by telephone, the



Theodore I. Jones

\$30.00 is the minimum annual rate for a 600 message residence contract in Brooklyn). We assume that if a person is sufficiently well off to afford \$2.50 per month for telephone service, he certainly could afford to pay about the same price for electric light and power for as a matter of fact, the aver-

*Abstract of Paper read before the Association of Edison Illuminating Companies

expense being the message rate under the company contract, amounting to approximately 3 cents a call in the larger cities with the loss of time of the agent between calls and the cost of transportation being entirely saved.

The preparation of a list of prospects involves some clerical work. The names in the telephone directory, so far as they apply to our electric light canvass, may be separated into three classes: (a) Present electric light consumers. (b) Non-consumers located on the lines of the electric light company. (c) Non-consumers located off the lines of the electric light company and requiring an extension of the mains to serve them.

These three divisions may be further divided into business and residence prospects. It is obvious that a different method of handling each class of prospect is required.

In considering the residence prospect the first question is what time of the day to call? When a salesman calls upon a housewife she usually expresses an intention to consult her husband before discussing the subject. It would, therefore, seem best that the call be made when the head of the house is at home and at that period when he is likely to be in a receptive mood—obviously not before he has had his dinner nor too soon after. In short, the call should be made at a reasonable interval after dinner. The time, too, should vary with the season of the year. In Brooklyn, we have chosen from 8 to 9 p. m. as the most desirable and have omitted Saturdays, Sundays and holidays, thus far devoting two or three nights a week to the canvass.

The start of the residence campaign is, of course, the making of the list of names, locations and phone numbers. We take the ordinary telephone directory, first going through the letters in sequence as they occur, checking those who are present customers. As soon as each page in the directory is checked the detail is written on a card, with the name, address, whether present customer or not, business or residence,

whether on or off the line, the telephone number. We provide separate columns showing the dates telephone calls are made, the person spoken with, the salesman calling, and the result of the conversation. After making out this card covering the present customer, the name is crossed off the telephone directory list and the sheet handed to a clerk having in front of him a map of the company's lines. This clerk notes on the telephone list beside each name whether the house is on or off the line. The telephone sheet is then sent back to the card clerk, who makes out the proper card, identical in all respects to the "present customer" card, except that the word "no" is placed after the word "customer" and a line drawn through the word "on" or "off," according to the position of the telephone customer's house with respect to the company's lines. These three sets of cards, present customers and non-customers on and off the line, are then sent to the district manager in the territory indicated by the addresses on the cards.

In Brooklyn we divide the city into three districts, each under a district manager and the district manager sub-divides his territory into local areas each covered by a salesman who is responsible for the development of his particular field. On receipt of the cards by the district manager, they are sorted out and given to the salesmen concerned. The district manager then designates the particular nights in the week the various salesmen will work.

Approaching a man by telephone should be done as tactfully as soliciting in person—for example, in nine cases out of ten if an indiscreet salesman should call up a non-user of electric light on a hot summer evening with the query, "Do you want any electric light?" he would probably receive a curt reply. In Brooklyn we have indicated to our salesmen the exact conversation we desire used. For example, in approaching a customer who has no electric light service, the local salesman endeavors to include

the name of a recent customer who has been added to our lines and who is a neighbor of the person called, and the conversation begins something as follows:

"This is Mr. ———, local representative of the Edison Company. We are making a canvass of your street, have recently added Mr. ——— to our lines, and desire to know whether you care to consider electric service similar to that of your neighbor."

—This form of opening conversation we use with people on the line who are not customers.

To non-customers off the line the conversation begins as before, except that the local salesman states that we have had a number of requests to extend our lines along the street noted and would like to know whether the person called would be interested in joining with the others in a request to have the company extend its lines to give them service.

So much for the non-user of electric light. With the present customer a little different tack is taken, the conversation beginning as follows:

"This is Mr. ———, the local representative of the Edison Company. We are making a telephone inquiry among our customers to ascertain whether the service is satisfactory in every respect, and we would like to receive any comment that you may care to make."

—As a rule the answer to the above inquiry is satisfactory. The agent then continues the conversation, having in mind some particular electrical appliance, according to the time of the year. For example, the conversation continues as follows:

"We are glad to hear the service is satisfactory. We have recently purchased a stock of new electric irons (here any other appliance can be named). Would you care to have us send you one on a thirty-day trial?"

This frequently results in the placing of some electrical appliance and the customer feels that the company

is taking an interest in his service.

The natural question that immediately arises on reading the above is how the customer receives these telephone inquiries. You may be surprised to know that in over 500 calls we have made to present and prospective electric light users, we have not received one discourteous reply or abusive criticism. The writer has with him approximately 100 cards taken at random, *not selected for display purposes*, but actually indicative of the results so far secured. Here are the reports of two separate district managers on the results of one of their night's work:

Total calls made.....	60
No answer or disconnected.....	29
Prospects for September 1st.....	1
Immediate prospects.....	12
Will not consider.....	18

Total calls.....	68
Parties telephone disconnected, either temporarily or permanently	10
Out or would not answer.....	28
Would not consider on account of expense; tenants only or not inter- ested.....	14
Parties interested; requests to call in Fall, about September 1st.....	5
Appointments or requests to call immediately.....	11

—The large number not answering is probably due to the extremely hot night driving the people out of doors.

You may be interested in knowing some of the detail of the answers we have received. Here are some specific replies to our telephone inquiries:

1—Interested—requested agent to call.
2—Interested—call about August 15.
3—Mr. ——— not at home—Mrs. ——— requested that we call again.

4—Mr. ——— stated that he had not given the matter any thought whatever, but would talk it over with his family and let us know later.

5—Mr. ——— was not in, but Dr. ——— the druggist, who is a customer of the company at this address, said he would talk to Mr. ——— about the matter and do all he could to get him to install lights upstairs, and

requested that I have an agent call.

6—Mr. ——— was not at home. Mrs. ——— stated they did not own house and would not consider.

7—Mr. ——— stated he did not own house, but would use service if landlord wired. Requested to have agent call at his New York office, — Street, any morning after July 4.

8—Mr. ——— not at home. Sister stated that her father owned the house and that she did not think they would do anything, as the neighborhood was getting to be very poor. Would take the matter up with her brother, who might consider the matter if agent called to explain details.

(a)—Telephone number changed. Mr. ———, at No. ——— Avenue. Using Edison service—no complaint to make; well satisfied; has no trouble getting new lamps; desires nothing additional at present; invited customer to office to see washing machine, fans and heating appliances.

(b)—Not in; may be interested; call in a day or two between 9 and 10.

(c)—Called this party twice; boy answered each time; called him last night; states he had a light a year ago; too expensive; don't want it; however, is willing to have agent call June 28th, 3:30 p. m.

(d)—Not interested in having house wired; may want power later in Fort Hamilton; will call at office next week or make appointment.

(e)—Does not own house and will not consider light.

(f)—Going away—will not wire now. However, is willing to have agent call with contractor and contractor to submit estimate.

(g)—Not interested, but will be glad to have agent interview him any evening between 5 and 8.

It should be noted in considering the above reports that the main thing the telephone canvass seeks to do is to interest the party called. We have additional data along this line, but the above will be sufficient to

indicate the general initial results.

We have not yet carried the store campaign far enough to present any data as to its value. The telephone canvass was established primarily for residence use, largely because of the difficulty of getting in touch with the head of the house in the daytime and the undesirability of approaching a business man at his office during business hours regarding service at his home. We have been carrying on this campaign less than three months, yet from the results secured in this short time we are satisfied that the telephone canvass will prove an effective method of securing business. We have already closed a number of contracts because of it and have awakened a very considerable interest among many prospects which is sure to eventually result in an increased business. It will be noted, from the reports submitted, that of the total telephone conversations, over 30 per cent have resulted in requests for immediate call, and the indications are that at least one-third of these calls result in contracts closed.

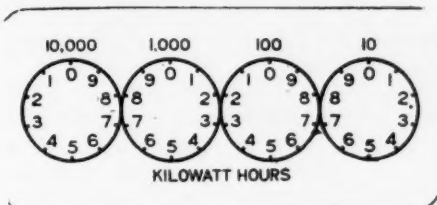
Sometimes indirect results are secured. Through residence calls we have developed two very good prospects which are likely to result in the closing down of independent power plants. The calling on present customers has been particularly satisfactory, not only in adding appliances or additional lighting to our circuits, but in bringing up and adjusting numerous little misunderstandings regarding lamps supplied, billing methods, etc., thus increasing the number of satisfied customers. Undoubtedly many modifications to this plan of telephone canvassing will suggest themselves, and it is with the hope that the ideas here presented will be freely discussed that this paper is presented.

A Meter Reading Card

Here is another meter reading card in use by a small central station in Beatrice, Nebraska, the Beatrice Electric Company, E. O. Capps, manager. Mr. Capps says that he finds some

difficulty in getting customers to read their meters and return the card in cases where the meters are installed in out of the way places. On the whole, however, it works out satisfactorily,

METER READING



Name _____

Address _____

Date _____

You were not at home when our meter reader called, and we ask you to kindly mark on the above cut the exact position of the hands as they appear on face of your meter, and mail this card at ONCE.

Beatrice Electric Co.

the cards are returned and the company is saved much time and annoyance from the misunderstandings which occur when bills are allowed to run over. The sending out of this

bill has been very favorably commented on by the public, and is a safe and practical expedient as well as a mighty good piece of advertising.

Stable and Garage Installation

Mr. Clare N. Stannard, Secretary and Commercial Manager of the Denver Gas & Electric Company, reports a very interesting installation recently connected in Denver. The equipment is in the new building of the Denver Omnibus & Cab Company.

The building covers one-half a block and consists of two stories and basement, the delivery department occupying one-half of the building, and the horses being kept in the basement. The heavy livery is on the first floor and the light livery on the second floor, and the remainder of the building is occupied with gas and electric garages. A 15 hp. elevator is used to transfer to the different floors. Five hp. is used for grinding feed, 2 hp. is installed on the clipping and buffing machines.

A complete electrically driven repair shop is on the second floor and has the following electric and gas equipment:

15 hp. on the lathes.

3 hp. on the emery wheels and drill presses.

2 hp. on the forges.



DOLLAR IDEAS

Exchange of Flatirons

GEORGE R. JONES, Purchasing Agent

North Shore Electric Co., Chicago, Ill.



We have recently issued an order to the effect that flatirons on our lines are to be subject to exchange the same as lamps. In other words, if our customer will bring to us an iron which is not in working order, we will immediately hand to her another iron the same type as her own, in good operating condition. This idea has sown good will among our patrons; not to mention the advantage of a large number of irons again registering on our meters, and we think it has not worked any hardship on the company to make these exchanges.

2 hp. used on the leather sewing machines.

2 hp. on the wood working machines.

15 hp. elevator.

California gas tire setter.

Gas pre-heater, for autogeneous welding.

Gas vulcanizer.

Special gas burner for generating steam used in wood bending.

A gas blast for heavy bending and straightening of bent chassis frames.

In the gas garage they have 7 1-2 hp. on an air compressor and several small gas braziers. In the electric garage they have a gas water still which gives them absolutely pure water for the care of batteries. A gas heater is used for furnishing warm water for washing purposes.

Charging current is furnished by one 50-hp. motor generator set, two 30-ampere 220-volt, single phase rectifiers; two 40-ampere, 220-volt, single phase rectifiers; two 40-ampere, 220-330-440-volt, single phase rectifiers; and one 7 1-2 hp. is used on an air compressor. This makes a total of 181 hp. connected load and an approximate demand of 2000 cubic feet per hour on gas. The entire building is lighted with tungsten lamps, there being a connected load of almost 10 kilowatts in the lighting alone. The Cab Company is now installing eight ornamental iron posts for the curb line in front of the building with cluster tungsten lights, and this lighting will burn all night. Both the horsepower and the amount of gas now connected will be increased in the near future as, since moving into the new building, the growing business is crowding the equipment.

Activity in Signs

The A. & W. Electric Sign Company of Cleveland reports much activity and plenty of business. Mr. J. B. Lindl, formerly in charge of new business for the Union Electric Company, Dubuque, Iowa, is now with the A. & W. Company and is conducting a very interesting and profitable sign cam-

paign in Milwaukee, working in conjunction with the Milwaukee Railway & Light Company. All local records are being broken in the amount of business closed and with marked effect on the night appearance of the city.

Wilmington, Del., Lighting Up

The days from October 3d to 8th were the liveliest seen in Wilmington for a long while, the occasion being a triple one consisting of the presentation of a silver service to the U. S. Battleship "Delaware," the greatest firemen's carnival ever held in the city, and an aviation meet. Wilmington is a city of about ninety thousand inhabitants and all hands made a holiday of the events, for besides the local population, there were probably twenty thousand visitors present.

"The central station was bound to be represented," says Mr. G. Leslie Brown, illuminating engineer of the Wilmington & Philadelphia Traction Company, "and we got to work early, with the result that streamers were placed across the main business streets for a distance of ten squares, and decorative illumination besides on a number of the fire houses and other buildings. Everybody was pleased, and, taking advantage of the opportunity the electric company's agents got busy at once, used some space in the newspapers and wound up in three days with sufficient subscriptions from the merchants to warrant continuing the festoons until January first. Further newspaper space was used and the more progressive merchants committed themselves to a permanent "White Way," and before the year is out, we hope to have a creditable decorative system about three-fourths of a mile long. This is not viewed by the company as the end, but rather the beginning for 'just around the corner' there are a number of smaller business sections which will be good prospects for similar efforts.

The reproduced photographs tell the balance of the story.



Night Views of Carnival Illumination, Wilmington, Del.

Closer Relations Between the Reporter and the Central Station

How the Newspaper Man Can Co-operate to Influence Public Sentiment and Develop a Greater Market for Current

By R. P. Williams, Reporter for the *Knoxville Sentinel*, Knoxville Correspondent for *Chattanooga News*, *Nashville Banner* and *Memphis News-Scimitar*, Knoxville, Tenn.

One of the greatest mistakes the average central station man makes is that he does not take the newspaper reporter into his confidence. He believes that when he tells the reporter anything he will rush to put it in the



R. P. Williams

paper. Now this is not so, for the standard of honor among newspaper men is no lower than with any other body of reasonable intelligence; and the average reporter when told a story in confidence would lose his position before he would betray the trust. Moreover, his employer would fire him if he knew he secured a story in confidence and wrote it for publication and turned it in before it had been released. Of course, there are some who would disobey this law, just as there are those who will break any law that is on the statute books, but the average reporter will be true to his word.

Another point of friction between the central station man and the reporter is when an accident happens

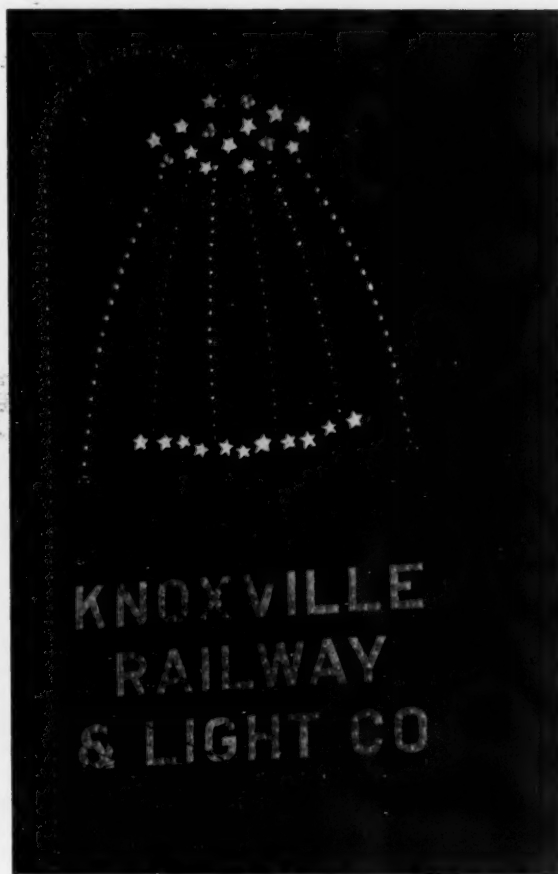
and the reporter wants and must have a story. There is always someone who will "give up," and many is the time the central station man gets an unjust newspaper notice for his company simply because he will not call in the reporter and give him the facts as they occurred. The central station man should show the reporter that he has confidence in him and the reporter who is "onto his job" will soon place him on the list of "good men to get a story from" and there will form a mutual understanding between the two, with the result that they both can work to one another's interest.

Until the year 1905, Knoxville did not have an electric sign across its streets. Now the arc lights are not needed along the "Great White Way" of Knoxville until after the hour for shutting out the signs. But how was this accomplished? By the central station man? No. Did he tell any newspaper reporter about it? No. Did the man who was interested in selling the signs tell the reporter what he was trying to do? No. The first story on signs, the first announcement of the "Great White Way" for Knoxville project was given to a reporter by William H. Gass, President of the Knoxville Banking company, who was Mayor of Knoxville. He called in the reporter and showed him the proposed ordinances granting the right to erect these signs, saying, "I am going to take one and burn each night the word—SAVING. It answers two purposes; it calls the attention to my bank, lights the streets and makes the town look as though it is alive. If you want to do something to beautify your city get behind this scheme with your pencil."

The reporter got busy to help the central station salesman, the ordinance passed and no city in the south has a better appearing and more substantial signs than Knoxville. Not only has it given Knoxville a "Great White Way," but since then there have been established in the city two manufacturing plants that construct electric signs, selling them all over the south and west.

Boost! and if you get wind of anything good or know any good way to push the town, tell it to some live reporter who will handle it. It makes no difference if it is not a direct boost for your company in the lighting business, for wherever you do something to boost your town you are boosting your own company. When the town grows the business is increasing. The great trouble with many men is that they don't want to boost another man's game, not realizing the fact that it will be "bread cast upon the waters and will return before many days."

Henry L. Doherty is one of the best boosters I have ever met, and so is George Williams who is connected with him. Mr. Doherty's interests purchased the Knoxville Gas Company in 1903 and ever since his policy has been to boost. When he took charge of the company a gas stove was a luxury in this town; now it is a necessity. They have recently purchased the plant at Bristol, 131 miles east of Knoxville, and before George Williams arrived to look over the plant the press of the state announced that the new owners would erect a mammoth electric sign to advertise Bristol. It was to be placed at the Union Depot and operated free of cost to the city and at the expense of the Doherty interest. Now, this was done simply by taking a news-



Flashing Sign of the Knoxville Railway and Light Co.

paper man into their confidence, and telling him that at a certain time they would make this deal. When it came the story was ready.

Everyone who saw Knoxville signs remarked that they were well made and very effective and added much to the appearance of the city, but no one ever thought of writing up the Knoxville "Great White Way." One day George Williams was walking down the "Great White Way" of Knoxville with a reporter and he said: "Bob, I have a little suggestion to make. You can take it up and see what you can do. You have here some of the prettiest signs in the country, and I believe you can write a story and get photographs of these signs and give Knoxville a

boost. Come with me to my rooms and I will give you a copy of a magazine that I believe will be glad to print the article. My people here are only selling gas, but we sell electricity in other cities and it all helps the game."

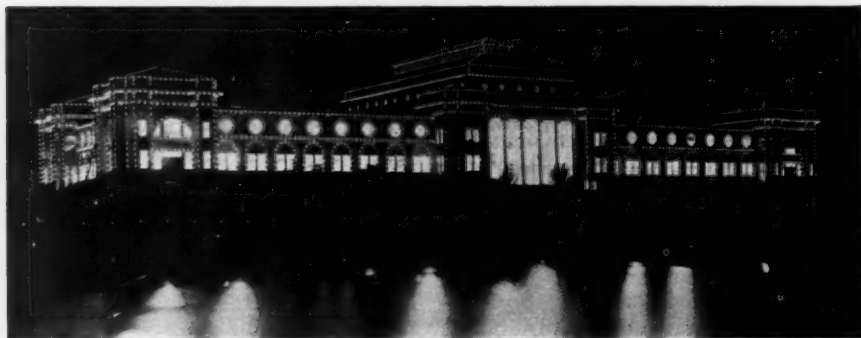
"Bob" took his suggestion and secured the magazine. He wrote the publisher and was asked to submit the story with photographs of signs burning. The proposition was accepted, and the next job was to get the photographs to make the cuts. First, he called on the central station, but they did not give him much encouragement. So he started out on his own hook, secured a local photographer and the pictures were made. The story was soon complete, sent to the magazine and was published.

The Knoxville papers had never realized that there was a "Great White Way" except on carnival occasions when extra lights were strung. But on the publication of the story it was reprinted in the *Knoxville Sentinel*; also every year the local Commercial Club gets out what is known as the Knoxville Annual, which is a book devoted to cuts of buildings and other points of interest to advertise Knoxville, and the story was soon after reproduced there with the original

cuts. J. E. Tucker of the Greenwood Advertising Company, who manufactures electric signs in Knoxville, secured two copies of the magazine that published Knoxville's "Great White Way" story and used them as part of his samples and showed them all over the south and west while traveling in the interest of his company.

The point that I wish to bring out is the fact that the little suggestion that George Williams made to "Bob" did more than anything else to advertise and bring before the Knoxville public the value of electric signs. The central station man, if he will only realize it, can be of service to the newspaper reporter in many ways that will bring back profit one hundred fold. Don't wait each time to tell him a story boosting your own game, but if you have it, tell him one boosting someone else. Take him into your confidence and he will prove a friend you need.

William J. Oliver of Knoxville was the lowest bidder on the Panama Canal, though he did not get the job. But he got more newspaper notice and can still get more than any other contractor in the country. Why? Because if he knows of a good story he doesn't hesitate to give it to the press.



Administration Building, Appalachian Exposition, Knoxville, Tenn.

The Des Moines Plan of Meter Reading*

*How One Central Station Has Eliminated the Monthly Rush and the Errors
it Occasions*

By Paul S. Sawyer, General Manager Des Moines Electric Co., Des Moines, Iowa

As the business of a light and power company increases, problems arise concerning the best methods of handling the details of it. Sometimes the existing methods can be expanded to meet the new conditions and in some cases it is necessary to abandon established forms and adopt other and more elastic ones. This condition arose three years ago in the meter reading and customers' billing department of the Des Moines Electric Company. At that time we had 3000 meters and were reading them as near the last day of the month as possible, and as we allowed a cash discount for payment by the 15th, it was necessary on that day to stop all regular work in the office and give attention to the customers. This state of affairs prompted us to work out a plan for meter reading that would eliminate our difficulties and meet unlimited expansion of business. With this in view we obtained what information possible from other companies and worked out the following plan for continuous reading of meters and billing of customers:

We divided off on the city map, twenty-five districts to correspond to twenty-five working days, each district one day's work for one reader and the districts varying in area as the distance between meters governs the number of meters that can be read per day per man. The meters in each of these districts were routed, and a reader's loose leaf meter book made up for each. The districts were numbered one to twenty-five inclusive, and the reader started out with Book No. 1 on the first working day of the month and read one book on each working day until all the readings were taken. This arrangement made

necessary a revision of the procedure in the customer's accounting. The meter reader was placed under the direction of the chief clerk, and we straightened out the congestion experienced in the office at the first of each month when we closed up the previous month's work and made up our reports.

As a book was turned in each day, we decided to bill the customers in each district the day after that district was read. We arranged the customers' names on the addressograph, the meter record book, and the customers' ledgers in the order in which the meter reader's book was routed. This permitted us to handle each district separate or on the unit system, and at the close of the day following the reading of the district, we would have our bills out and the gross amount for that district totaled. The anticipated results of the plan have worked out very well. The saving in reading meters the first year was approximately \$170, and the errors in reading fell to almost nothing. The confusion in the distribution department from which the readers were drawn under the old arrangement was eliminated and we were enabled to get our bills collected within fifteen days, which in 1908, meant several thousand dollars less tied up in the business, as we were forced under the old arrangement to start the reading some months as early as the 22d.

The results in the accounting were also gratifying. The errors in calculation of bills were practically eliminated as one clerk working constantly on figuring bills, soon became very proficient. Whereas, in the former method several clerks figuring bills for a few days only at intervals of thirty days, would naturally make some errors. An error that escapes is

*Abstract of Paper read before the Illinois State Electric Association.

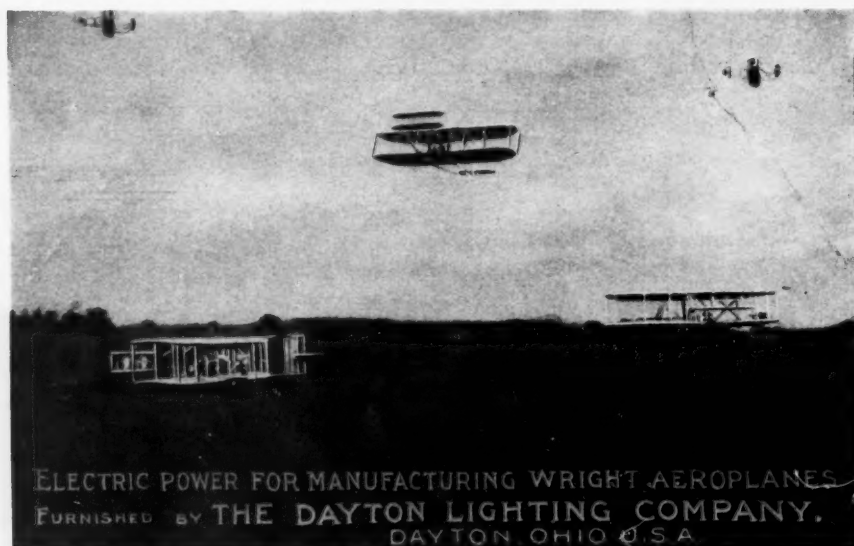
bound to cause dissatisfaction among customers, and further, should complaints of any kind come from customers, they were scattered through the month and could be given a thorough investigation and not be advertised as in the old case when four or five customers might line up on the fifteenth, and all witness the adjustment of complaints of those who were ahead in the line.

The plan can be expanded almost without limit. As the meters increase the districts can be divided, and an additional reader can be used. There are many interesting details I have not so far brought out as in the addition of customers' names which can be inserted in the proper places on the addressograph in the loose leaf meter book, and meter record book, but in the bound customers' ledgers it is necessary to add the names to the end of the route, when opening new ledgers January first, insert the names in the proper place. The customers' ledger will necessarily have to be indexed.

In changing over to this plan, it is necessary to bill the customer for a shorter period than one month. We changed on January first, 1908, and as

all meters were read before that date and after December 21, 1907, the customers in districts Nos. 1 to 17 (there are three Sundays and one holiday before the 21st) were billed for a shorter period and as a result, our gross as shown by the books for January, 1908, showed a loss, while our cash collected, showed a decided gain. Our discount day, of course, was changed to 15 days after the date of the bill, and quite a number failed to make payment in time. We were reasonable, and allowed discounts the first two months until the customers became accustomed to the new arrangement, although we had advised them of the exact nature and time of the change. Our output (kwh) comparisons were somewhat affected, as the sum of the customer's meter reading plus the known losses would sometimes exceed the sum of the generating station meters. This, of course, after the system had been in use for more than one year settled down so comparisons were again normal.

The period that we have had this plan in use has not suggested any change, and we feel that we have solved our old meter-reading difficulties.



The Dayton Lighting Company had 20,000 of these post cards printed and has distributed them broadcast through drug stores, cigar stands, from the office, etc.

The Company's Celestial Mediums

How the Central Station Sales Department Handles its Business in the Chinese Quarter of San Francisco

By Charles L. Barrett, Secretary San Francisco Gas and Electric Company
San Francisco, Calif.

The title of this article suggests something spooky, but it is not intended that way. The subject is so material that its consideration has been given much attention by such a prosy end of the company's business as the gas and electric contracting office.

Ever since gas or electricity has been furnished to any of its consumers the San Francisco Gas and Electric Company and its predecessors have

Chinatown. They made their daily departures from and returns to the main office. But during the strenuous competition with the Equitable Gas Light Company, from about 1900 to 1903, closer contact with the Chinatown business seemed necessary. So an office was established in what was considered to be the centre of Chinese business activity, the west side of Dupont Street, near Jackson, upon



The Chinatown Branch Office

had upon their lists large numbers of the Chinese population.

Because these very excellent people are not always able to speak our language sufficiently well to make their desires understood it has been found necessary for the company to employ as an interpreting medium, both for its own and the consumers' benefit, some intelligent Chinamen. For a number of years the company's Chinese agents had no particular office in

the street floor of the old Globe Hotel, which at one time, in the early fifties, had been San Francisco's most fashionable hostelry. The building had been remodeled for Chinese occupancy. This office was so brilliantly lighted at night with gas and electricity, both inside and out, that about ten o'clock it startled one to touch the plate-glass windows because of their sizzling hot condition.

The Chinatown office was an excellent advertisement. Because of that oasis of light the street in front of it at

*Reprinted from the Houseorgan of the San Francisco Gas & Electric Company by permission.

night became a regular congregating point for large numbers of Chinese unemployed, loiterers, and street talkers.

About March, 1906, that original office was supplanted by one of the company's regular branch offices. The new office included in its district boundaries not only all of Chinatown but the entire North Beach district. It was located at the gore formed by Stockton Street and Montgomery Avenue, and it extended through from one street to the other. Its work was more largely with the Chinese than with the other inhabitants of the dis-

Of late the company has been more particularly represented in the Chinese quarter than in the recent past. One of its Chinese employees, Hing S. Lee, a Chinese native son and merchant, has offered the use of his store and clerical force for the company's benefit in the taking of applications for gas and electricity from prospective customers and for the payment of bills by Chinese consumers.

The pictures herewith show the exterior and interior views of the store. It is located at 752 Sacramento Street, and is operated under the firm name of Kwong Sang Wo and Company,



Interior View of the Headquarters of Hing S. Lee.

trict, as the Chinese were in the majority as consumers.

The wide-spreading fire of April, 1906, included in its devastating sweep that excellent little effort of the company to get nearer to its consumers. That office was never reconstructed.

After the fire the company retained in its employ its old Chinatown representative, Sam Lock, who, although he had no regularly organized office, made it known to his countrymen that his residence and 'phone were always available for the company's business.

which, like most of the Chinese firm names, is only a fanciful title having no reference whatever to the names of the individuals forming the partnership. This one means: "World-wide in character, vigilant and active in business, independent yet peaceable." In the interior view the good-natured portly man with the light-colored coat is Hing S. Lee. He is one of our progressive, up-to-date Chinese young men, having discarded the queue, and affiliated with our people and institutions as far as innate instincts and traditions will allow.

The Chinese have always been large users of artificial light. They do their work and keep their stores open until late at night and sleep up to a late hour in the morning. They are also excellent pay, their financial education requiring that all obligations be honestly discharged at farthest by their New Year's Day.

In order to effect proper notification

本公司開創數十餘年歷蒙華友光顧銘感五內現
 爲華友利便起見如本公司收銀西人到來收銀時
 適有事外出遇請將此原單即携到唐人街七百
 五十二號廣生和內交代理華人
 李崇瑚 簽收便可電話差拿八百五十七號
 李崇登 或交總公司在所打街四百四十五號
 舊煤氣電燈公司謹識

An Interesting Communication from Mr. H. S. Ling.

of bill amounts when the Chinese consumer is not found at home by the company's collector, notice forms printed in Chinese characters are left on the premises. A reproduction of one of these notices is shown herewith. It reads, commencing at the top of the right-hand column and reading to the bottom, repeating this procedure with each column, working toward the left, as follows:

"Our company having been established a number of years and having expended a great deal of money in San

Francisco, it should be patronized by the Chinese people, and this patronage will be much appreciated. We now have a special office in Chinatown at 752 Sacramento Street. This notice is to suggest that you pay the accompanying bill there to Lee Hing Sue or Lee Yuk Sue, the company's agents at that address, if you do not care to go to the main office—445 Sutter Street."

A Novel Theatre Sign

By A. L. Triggs

The opening of the Priscilla Theatre in East Ninth Street, Cleveland, on the night of October 10th was announced in a most spectacular and effective manner by the illumination of a mammoth electrical display installed on the roof of the new theatre building. Announcements made through the local papers advertising the illumination of the spectacular display as one of the features of the opening, attracted thousands of people to the scene and the streets were thronged for several blocks with spectators anxious to witness the first operation of the novel sign.

The sign is 42 feet in length by 38 feet in height and consists of a re-



A New Theatre Sign in Cleveland, Ohio

production of a stage setting, showing a crimson velvet drop curtain drawn gracefully to each side of the stage and secured by heavy gold cords. Across the top of the curtain in five foot electric letters is the name Priscilla in a

half circle. On the floor of the stage at the left is seen a Japanese juggler lying on a mat, balancing a large ball on his toes, while at the right appears a ballet dancer. In the center of the stage is a trapeze performer gracefully poised on the swinging trapeze.

When the current was turned on the name Priscilla appeared in dazzling brilliancy, burning steady, and immediately followed by the flashing of the drawn curtain and footlights. After a moment's delay the flying trapeze performer appeared on the swinging trapeze, gracefully dropping and raising herself to an upright position several times while the trapeze was in motion. Then followed another flash, and the juggler was seen carefully balancing the ball on the tips of his toes for a few seconds, and then revolving it first slowly and then faster and faster until it was going at lightning-like speed. And while these two figures continued their acts, suddenly the dainty ballet dancer began her difficult steps and showed some feats in high kicking that would make an ordinary dancer turn green with envy. The three acts continued for a few moments, then the entire display became dark for a few seconds and repeated.

The entire display contains about 1500 lamps of all colors and is one of the most attractive displays that has ever been originated. Messrs. Seas & Young, the owners of the Priscilla, are enthusiastic in their praise of the sign, and state that they were unable to take care of the immense crowds who tried to gain admission the opening night. They have been showing to packed houses ever since opening and credit their success to the attracting power of their electrical display.

The sign was originated and erected by The A. & W. Electric Sign Company of Cleveland, who spent considerable time in visiting various cities for the purpose of getting ideas and studying displays used by leading vaudeville houses. An interesting by-product of the installation was brought very prominently to our notice by a canvass of the merchants and business places in the vicinity of the Priscilla. They were unanimous in expressing an opinion that the installing of this display had increased the travel on the street to a large extent, and the resultant growth in their business was estimated at as much as fifteen per cent. Such is the attracting power of a novel electrical display.



Night View of New Center, South Bend, during a Recent Popular Celebration

Wasting Dollar Bait on Ten Cent Fish

A System That May be Justifiable in Sport, But Bad in Business

By W. E. Bayard

When an amateur fisherman wastes a dollar's worth of bait to catch a ten-cent fish, he is justified because his main object is to fish, not to catch fish. He probably gets five dollars' worth of sport and recreation, so he is ahead of the game even though he catch nothing. But if a professional fishermen proceed upon the same impractical plan, it would not be long before he would have to live on charity.

Now, let us suppose that our amateur fisher is a hotel-keeper and that he goes a-fishing to secure the Friday dinner for his guests. He really doesn't care a whoop about fishing, nor about making money at fishing; his object is to get the fish as an article of food which will please his guests and induce them to remain in his house. His profit lies not in the fish, but in the combination of board and lodging. We are supposing, of course, that he cannot buy the fish from the professional fisherman because there are none in the vicinity, and he must catch them himself or do without. The problem is this: Is it good business for him to continue to fish on an amateur basis, wasting a dollar's worth of bait to secure ten cents' worth of fish, or should he adopt the professional's method and spend a nickel's worth of time and labor for every dime's worth he brings home? I think every business man will answer that professionalism is the only proper course. Yet a good many central station men, who are also business men, are doing exactly the opposite. They are wasting dollar bait on a ten-cent fish.

I refer to appliance policy. In any number of well-managed central stations the policy still obtains of selling appliances "at cost." This policy is based upon the assumption that the central station is in business only to sell current and that appliances are a

side-issue simply to stimulate the sale of current. For some reason, which neither good logic nor experience can justify, the managements of these stations contend that the cheaper the appliances the more of them will be sold, and, further they advance a theory—which time has exploded—that the words "free" or "sold at cost" are the most succulent advertising bait. So they expend a dollar's worth of this something-for-nothing bait to sell ten cents' worth of current.

If the matter were one simply of discussion, we would arrive nowhere, for my statement that appliances should be sold at a profit is no more forceful than the something-for-nothing man's assertion that they should be sold at cost. The only way that we come to an agreement is by submitting positive proof—by adducing court-of-law evidence. So I will quote figures.

A certain eastern central station for a long time pursued the policy of selling appliances at cost. Comparatively few appliances were sold, but these appeared to net a neat increase in the station's connected load, so that everybody was happy. One day the commercial manager who had instituted the give-away policy was offered a better position, and a new man brought in. The new man looked over the appliance sales records and began to analyze them a bit. He found that, although the appliances were advertised "at cost," they really showed a slight profit. But when he secured all the figures he found something like this:

Number of appliances sold in six months.....	214
Current consumption of 214 appliances.....	77 kw.
Profit on 214 appliances.....	\$164.63
Cost of operating appliance de-	

partment for six months . . \$636.72
 Cost of business secured through
 sale of appliance . . . \$6.13 per kw.

The last item on the table was what made him "sit up and take notice." He knew that the cost of connecting ordinary business was something like \$2.00 per kilowatt.

It was evident that \$6.13 per kilowatt was altogether too high a price to pay for the appliance load, and he decided that unless some method could be devised whereby the appliance department could be put on a less expensive basis, it would be as well to drop it. After some thought, he hit upon this plan: Sell the appliances at a profit. The idea did not find much favor with the company's president, but it was tried as a desperate measure. The new man's strongest argument was that by raising prices he would discourage sales and that ultimately the appliance department would die naturally, without causing any opposition or criticism upon the part of customers.

A year later the president called for an appliance sales report. He figured that this department was practically defunct and that it might as well be cut out altogether. Here is the report, covering the same months in the year as the previous report:

Number of appliances sold in six
 months 228
 Current consumption of 229 appli-
 ances 106 kw.
 Profit on 228 appliances . . . \$386.43
 Cost of operating appliance de-
 partment for six months . . 364.80
 Cost of business secured through
 sale of appliances nothing
 Net profit of appliance depart-
 ment \$11.63

Under the new regime, the number of appliances sold was about the same, and this despite the fact that every sale carried on an average of a dollar more profit. At the same time, the selling cost was reduced, because the same business principle which demands a higher price for an article also demands economical and sane

sales methods. The appliance salesman had been told that he had to be self-supporting. He was not given credit for the current consumption of the appliances sold, but only for the profit he made on the sales. There was no self-deception, no credit for the "advertising value" of the appliances sold, no talk about having to "sell the appliances low to get them introduced." The department was run as a merchandising establishment, for profit.

A merchant who sells goods at cost loses money, because he must charge at least 20 per cent to come out even. He must pay rent, clerk hire, interest on his investment, depreciation on stock and equipment, superintendence, advertising and miscellaneous expenses and losses. The central station that runs an appliance department faces the same charges. When you say, "I don't have to charge clerk hire against my appliance sales because one of the regular clerks takes care of this business," you are simply parroting the owner of an isolated plant who says, "I don't charge any labor against my plant because I have to keep an engineer about the place anyway." Your clerks, like the isolated plant owner's engineer, are paid by the hour. If their time is employed it should be charged. Of course, if you keep clerks as ornaments, that's another matter. Similarly, the space given up to appliances should be charged as rent, the account-keeping should be charged as overhead expense. To hoodwink yourself into a belief that an appliance on circuit has "advertising value" is no more reasonable than for a dry goods merchant to claim that it is good advertising to give away four yards of ribbon. To run the appliance department at a loss because the appliances consume current is no more justifiable than for a coal dealer to give away stoves because they consume coal.

The new business specialist who has files of data accumulated from all over the country, can confirm the experience above cited. The records

show that wherever proper *business* methods are applied, the problem of selling electrical utensils is no different and no more difficult than the problem of selling groceries. The mistake too many central station men commit, however, is that they consider themselves competent by nature to be successful merchandisers and business men, though their training has been entirely in public utilities methods. This mistake is natural. It is hard to admit that one may not have the capacity for success in any venture. Just as the man on the street thinks he can run a lighting plant better than any central station man, so many central station men think they can be successful merchants out-of-hand. In the case I have cited, the successful

commercial manager had been a manufacturer's salesman and had a wide *business* training. His predecessor was raised in a central station and had no outside business experience. The results speak for themselves—and they prove conclusively the need of employing *business* men for the purpose of securing business success. Whether you hire a man and put him in charge, or whether you employ outside commercial experts to train your present men, it's all the same in the end, though the experts will undoubtedly get the quickest and largest results. The point is this:—

The object of business is to make money. You can't make money by wasting dollar bait on ten-cent fish.

Departmental System

By Harry N. McConnell, Commercial Manager Susquehanna Railway & Light Company, New York City

In the old days the commercial department was a side-issue. The company manager was too busy with engineering to give much time to sales. He had to supply the natural demand for energy, and do it economically enough to keep out of bankruptcy. As technical problems were solved the commercial department grew—but too often its growth was that of the unpruned orchard. It made no difference how it grew so long as it grew, and there was little opportunity to check up its efficiency, because even now it is hard to distinguish between the normal growth of a company's business and the growth induced by the commercial department.

There are a great many commercial departments today which have "just growned," with a desk in this corner, another there, another upstairs, or perhaps one desk for the whole department. That isn't the way to organize an efficient commercial department. Efficiency demands sys-

tem. It must have records. It must cause co-operative competition.

You cannot get the best out of a man by making his office work hard. A salesman has enough troubles outside the office. Don't add to them when he gets back. A man who slept in a kitchen chair last night can't do today the work of the guest who had his bed. You can't expect a racehorse stabled in a cow shed to make the showing of one pampered in a padded stall. You must pad your salesman's stall if you want the best there is in him. You must give him room to work, room for his records, a space he can call his own. After he has tramped his territory all day long he is tired and he will appreciate it. The helter skelter commercial department cannot be genuinely efficient.

You cannot excuse poor commercial accommodation on account of the expense. If a commercial department is worth anything at all, it is worth maintaining properly. And the

expense need not be much. Just look around and see what you can do. I went into an office the other day and found four men using one desk, the only property of the commercial department. The department needed ginger—and there was the reason right before my eyes. That one poor, inanimate, unfortunate, foot-scarred, butt-burnt desk—too poor to sell even to a second-hand man—was costing the company hundreds of dollars a year in *efficiency*.

A room on the second floor was found. It was used as a storeroom, cluttered up with stock and rubbish. "This will be our commercial department," I told the manager. It had a big window and was directly over the main entrance to the offices. People from the street could see the upper half of the room, but not the lower half; so we took some arc glass domes out of the basement to make room for the stock which had been removed from our new commercial department, and hung them over the desks in the commercial department. This made a most attractive display from the street and was valuable as an actual demonstration of the domes.

There was also an old desk in the basement, which, with the application of a lot of soap and a little furniture polish, became the commercial manager's desk. Along the wall was built a salesman's table on which were placed glass covered maps showing each salesman's territory and the existing lines therein. A blackboard was placed on one wall on which each salesman's record could be seen at a glance. This arrangement gave the commercial department a home of its own. The men did not have to sit in window sills or climb radiators to have a talk with the commercial manager. They did not have to go out on the sidewalk or in the basement for their morning meetings. The total cost of the entire change, tables, maps, and all, was less than \$50, yet the efficiency of that department took a sudden upward leap so strong that it is still ascending. The increased

sales are automatically decreasing the operating cost and the expensively cheap desk which held the commercial department down for so long is a thing of the past.

On top of the commercial manager's new desk is a rack containing one bank of 31 spaces and another of 12 spaces for days and months. Every night when the salesmen come in they turn in their loose-leaf reports to the commercial manager—one report for each prospect—showing the date on which the next call is to be made. Into the rack they go, each in its appointed place. In the morning the commercial manager reaches for space 20, if this is the 20th of the month, and distributes the calls to be made that day. There is no forgetting an appointment. There is no excuse for failure. When the salesman gets outside he doesn't have to look up and down the street and wonder where to start. He has half a day's work cut out for him already, and the other half will take care of itself.

The commercial department, to be successful, must know what it is about—and be about it. This department is the most important in the company, for without it there would be no money in building stations and turning wheels. Let it be clothed with a dignity befitting its importance. It is as necessary that the department should present a good appearance as that the individual salesman should. Let the salesman know that his department is worth while, and he will gladly show his customers that the company also, is worth while.

Tungsten Street Lighting in Cheyenne

The two photographs reproduced below show the night and day effect of the tungsten decorative street lighting equipment, recently installed in Cheyenne, Wyoming. In talking recently of the success of this installation, Mr. A. G. Langenbach, who operates the local Central station, the Cheyenne Light, Fuel and Power Co., said:

"About February of this year I tried to sell some kind of a street lighting post to some of our merchants and after corresponding with several man-



The Posts by Day

ufacturers, decided to use the Jandus Luxolabra, the five-light fixture, so wired as to burn the lower four on one circuit and the top globe on another circuit. The globes for these posts are twelve-inch for the four lower ones and sixteen-inch for the top and it was my plan, at the time, to sell the posts to the merchants and then get the city to pay for their lighting and main-

tenance. Up to this time we have not been successful in this, but no doubt the time will come when the city of Cheyenne will pay for the lighting of these posts.

"About the end of February I ordered twelve of these standards at my own expense, and offered to put them up on trial for the merchants of Cap-

itol avenue, on which our office is located. When the first post was erected in front of our office I had no difficulty whatever in selling twenty-five more at \$75 installed, complete with globes and tungsten lamps. Some time after this we solicited the business district and found that the merchants who had bought the first posts were our best solicitors and there was no difficulty in disposing of seventy-five additional.



Night View of the Cheyenne Installation

feet above the ground.

"The new decorative street lighting has proven to be a matter of great advertisement for the city of Cheyenne, and a credit to the merchants who have gone to this expense, and in my estimation it is only fair for the city to pay, at least the lighting and maintenance."

SELLING ELECTRICITY

JANUARY, 1911

TOO MANY ASSOCIATIONS ?

Co-operation is the keynote of progress. It has made the electrical industry great in a few years by eliminating the wastes and friction of competition, by putting into common store the experience of all, by converting feelings of distrust and suspicion into hearty friendships, and by making for enthusiasm, cohesion and mutuality. No one with any perspective will deny the benefits of co-operation; no one with the interest of the industry at heart will suggest its restriction. But the question may be fairly asked, specifically as regards associations and association work:—Are we not in danger of going too far? Are we not in danger of overlapping—duplicating? Are we not, in short, actually threshing over old straw in some of our co-operative effort?

The matter of associations is becoming critical. To the busy man the time required to properly discharge association duties is a very serious matter. To the younger element—those who are struggling for a foothold and whose rewards are incorporated in a modest monthly pay check—the matter of dues alone is sufficient to cause uneasiness.

Let us consider, for example, the commercial manager of a combination gas-electric company. He desires to be "among those present," and his

ambition for knowledge, for acquaintance and for personal honor and advancement, lead him to join such associations as he thinks will benefit him and increase his efficiency and prestige. He starts with the National Electric Light Association, the American Gas Institute and the National Commercial Gas Association. Being an engineer, he is an associate of the American Institute of Electrical Engineers, and being a lighting man he joins the Illuminating Engineering Society. Some good friend induces him to become a Son of Jove, and now he is asked to affiliate with the Electrical Vehicle Asso. of America. Of course, such a man must hold membership in a few purely local associations—a good club, a church, perhaps a National Guard regiment or the country club, and a political club. In the end, without being what is generally known as "a joiner," he must belong to perhaps ten or a dozen organizations the dues and costs of which can hardly be estimated at less than a hundred dollars a year.

It is not with any idea of discouraging membership in valuable organizations that attention is drawn to this matter, but rather to cause a careful analysis of these values and to question pertinently whether or not we are duplicating both effort and expense. It has been shown, for instance, that territorial associations of electric light companies can gain immeasurably by affiliation with the National Electric Light Association. This means a reduction in expense and wider co-operative effort; it is a step towards cohesion and concentration. On the other hand, the Vehicle Association is undertaking an independent campaign that suggests disintegration and a

scattering of effort, for the work it plans is no different or greater (if public reports are authentic) than could be undertaken successfully by the National Electric Light Association.

Is this new organization the forerunner of other similar bodies? Are we, for example, to have a central station association devoted to signs, decorative street lighting, small motors residence business, and a dozen other details of the business? And are such associations, if formed, to be dominated by manufacturers whose idea, at least in part, is to get the central stations to carry a good share of the cost of their propaganda?

The question has a serious side, not only because of the waste of effort, the burden of expense and the amount of time such association work entails, but because duplication of association effort results very soon in association competition. Right now the Commercial Section of the National Electric Light Association has a committee on Electric Automobiles. This committee is headed by a prominent central station man of wide and successful experience in furthering the market for electric vehicles, and is composed of men of standing and ability. It has the power to collect and expend funds for promotion work and both trade and popular education. It serves the industry as a whole, because it is created by and reports to the National Electric Light Association. It can and should do all that the Automobile Association can do. In view of this specific duplication of effort, this competition of associations, our question is pertinent: Have we too many associations?

ADVERSE ADVERTISING

The Union Electric Company of St. Louis recently issued a peculiar photographic advertisement, two pictures of a fire-wrecked building and reproductions of two clippings. The clipping that explains the fire tells how a gasoline lighting plant went up in smoke, causing some \$60,000 damage. The other clipping, which is some two years old, tells how the gasoline system happened to be installed. It is this first clipping that holds our interest.

"Consumer Sees Electric Meter Work Overtime" is the way this newspaper item is headed. "Lights All Out, But Kilowatt Register Stayed on the Job." And then, for the best part of a column, the reporter goes on to tell how the proprietor of a pool-room stayed up all night to watch his meter, after the bill had "jumped" from \$33.00 on a flat-rate to \$60.00 on a meter basis, and found that the meter registered two kilowatt hours in a single night after all the lights were out. Some of the paragraphs will bear repeating:

"When the pool-room men found that their electric light bills had increased from \$33.00 a month under a flat rate to \$60.00 a month under the November rate schedule of Union Electric, they sat up from midnight to daylight with the meter.

"When they learned that in five hours the meter, with all lights turned out, had registered two kilowatt hours, they determined to discontinue the Union Electric service and illuminate their place with gasoline lamps.

"After the contract was signed Union Electric demanded an increase in the deposit from \$28 to \$50. Mr. Harbur refused to pay. With its usual promptness in such matters Union Electric disconnected the pool-room and left it in darkness.

"With this club over his head, Mr. Harbur had to pay the \$22.00 in order to get any light, although Union Electric had contracted to give him the service."

As an incident, the controversy with the pool-room proprietor is un-

worthy of mention, but that the account of this controversy should get into the papers in such palpably unfair form is a lesson which should sink in.

The newspapers, all in all, are fair and honest. Their reporters are generally pretty clean-cut fellows. But human nature rules in a newspaper office as elsewhere; a reporter who has a real or fancied grievance is going "to take a fall out of" the company when he gets a chance. The proprietor of the paper, if he has had trouble about his own bill, is going to believe and publish stories about other people's bills. You'd do the same thing yourself if you were in his shoes.

This kind of adverse advertising costs the central stations of the country a good many hundreds of thousands of dollars a year. It could be avoided by the expenditure of a little tact, a little patience, an occasional friendly service to newspaper men, and a little broader outlook on the part of central station managements.

Not long ago a public service manager asked a prominent commercial man how he should spend a six hundred dollar appropriation which had been voted by the directors for advertising

"Buy cigars," was the curt but pregnant answer.

That answer has a very direct bearing upon the publication of adverse advertising in newspapers. For if you hand a newspaper man a niggardly ad he feels that it is a sop, and despises you. If you offer a fist full of good cigars, he thinks it is a sign of friendship, and accepts it as such. His policy and his reports reflect his personal feelings.

Buy cigars.

EXCEEDING THE SPEED LIMIT

Our proof-reader has suddenly developed an alarming case of speedomania. In our December issue, on page 253, there was an article by Mr. George R. Jones, Purchasing Agent, North Shore Electric Company, Chicago, entitled "Electricity on the Farm Shown at the County Fair." One of the exhibits described was a deep well pump having a capacity of from 1800 to 3000 gallons per hour. Our ambitious proof-reader, it seems, himself hales from the thrifty state of Illinois and saw here an opportunity to step up the fame of its farmers. He made that pump speed up to 3000 gallons per minute, a tribute to the high tension activity of the tiller of Illinois soil.

We have warned him against such excess of zeal and expressed our regret to Mr. Jones. (Of course, we had a month to work this up, but we think it isn't bad at that. Do you?)

Over Six Thousand

The National Electric Light Association reports that it is continuing to enjoy the growth which it has experienced so remarkably during the past eighteen months. On December 12th the membership reached the high mark of 6007, inclusive of 904 operating companies and 222 manufacturing concerns. The operating companies and their sections have 4133 employees and members of their staff in Class B membership. The membership in July 1909, was 3137, and at the meeting of the executive committee last January was reported as 4500, so that the net growth during the present year, after dropping 250 individual members for various reasons, is around 1500. Mr. H. H. Scott, the energetic chairman of the membership committee, has with the aid of a large and enthusiastic committee, just set on foot another membership campaign.

ELECTRICAL PROGRESS

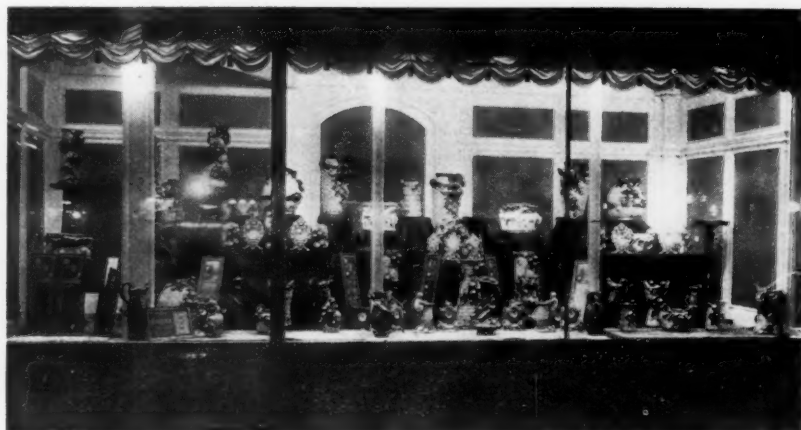
Window Lighting Number
Supplement to "SELLING ELECTRICITY"
January 1911



Published by
THE RAE COMPANY
74 Cortlandt St., New York

“EFFICIENCY”

In Window Lighting



“EFFICIENCY” means getting the most for your money.
In window lighting, you get the most for your money by
using

Holophane Reflectors

because these scientifically-designed Reflectors give you the maximum *useful illumination* from your electric lamps.

We are Lighting Experts as well as designers of scientific Reflectors. We have had very wide experience in lighting display windows for some of the largest and most important mercantile establishments in America.

We will gladly give you the benefit of our experience, whether your windows are large or small. In any event we can show you how to get the most for your money.

Holophane Company

Sales Department
NEWARK, OHIO
Philadelphia

New York

Boston

Chicago

San Francisco

PatCo

Electrical Progress

How to Appraise Your Window Lighting

The Value of Circulation—Why it is Worth Most After Dark

When a merchant hires a clerk for \$75 a month to sell goods over the counter, it is with the understanding and belief that he will be sufficiently clever and industrious to make enough sales to pay his salary, and take care of his share of the overhead and the profit. He watches that clerk and if he finds him non-productive—that ends it. The house can neither afford to carry dead wood nor to disregard the opportunity which a better salesman offers.

There is the theory of his business in a nutshell. It applies to every branch of the enterprise. It applies to the show-windows—yet, how many merchants overlook the sales power of a well-lighted window—the profit in the extra night circulation it offers? He gauges the value of the newspaper ad by the number of subscribers to the sheet, but he takes his windows for granted.

Now, any store window is worth just so much per day per passer-by. The more prominent the location and

the greater the traffic, the more will be the value of the property and the taxes or the higher will be the rental. But it all gets down to a basis of circulation, the number of possible purchasers who pass by.

The one most ever-ready and forceful medium whereby the merchant can advertise direct to his entire circulation is the show-window. It talks straight to the wants of the people. It does more than any printed ad. It does more than conversation. It shows the object itself. It holds it out to you—but out of your reach. That is what starts the desire you never knew you had.

Therefore it is the profit-pulling power of this very show-window that gives the value to the greater circulation of the prominent corner. The merchant prospers to the degree in which he makes this silent salesman work, and in proportion to his success in attracting the attention and interest of every passer-by, and in impressing the value of his offerings on every



An example of Good Window Illumination. The Lights are not Apparent and the Display Receives the Full Attention

(Three)



A Photograph Taken on Fifth Avenue before the Experiment

possible customer who comes within range of his window.

The big retail corporations which operate chains of cigar, notion, drug and liquor stores employ experts who do nothing but appraise the value of store and window locations. These experts are sent to look at a certain space; they count the passers-by, note what class of people they are,

estimate their buying power. This investigation does not stop at dusk, but continues till midnight.

The proprietors want to know the after-dark value of the display windows.

The system which these big corporations follow should be copied by every retail merchant. Window lighting should not be left to chance—it should be appraised and its value



The Same Block After the Progressive Merchants Began to Leave their Windows Lighted

(Four)

known. Here is a good example:

The retail merchants of Fifth Avenue, New York, were so "exclusive" that they drew their window shades at closing hour. As result, the avenue was deserted at night. Last winter a number of them tried the experiment of leaving the shades up and the lights on, and they sent checkers out to note the results.

Before the lights were lit, a count was kept of all passers-by and it revealed an average of 429 persons per hour—all of whom hurried along because there was nothing to attract them. The following week, when the lights were lit, the average was 834 persons per hour, of which over half stopped to study the displays.

That shows both the value of light and the value of carefully checking the tangible results.

A window display is an advertisement—but instead of *telling* about the merchant's wares, it *shows the actual goods*. And every merchant knows the difference; if folk did not want to see the goods, if they should be content with a picture and a price, all retail stores would soon give way before the mail-order idea.

And because a window is an ad, it has a set value. One pays one dollar an inch for space in a big daily paper or ten cents an inch for space in a country weekly. The price is based upon value.

Is there any more valuable circulation than the evening crowds? Is there any time when the window display stands out as clearly as in brilliant contrast with the night?

We all know how light attracts—humans no less than moths. And in the evening our eyes are ready for diversion, our minds are open to impression. When the day's work is done, the merchant's "circulation" is in its most receptive state and the cost of reaching these biggest opportunities is simply the cost of window illumination. Without that light the cleverest, most appealing display of goods is wasted after sundown.

The Window Shopper

*How Any Merchant Can Check the Value of
His Window Advertising*

The direct benefits of almost any sort of advertising are always more or less intangible. The average man does not stop to think why he buys. He does not realize what influence has attracted his attention and induced the desire. It is a very small percentage who write in and say, "I saw your ad in *The Morning Screamer*," and even less often do customers walk in and announce that they crossed the street last night to look at the window display and must have that pair of shoes.

Nevertheless, the ads in *The Morning Screamer* are selling goods every day, else there would be no ads; and the window displays are making sales every night, as witness the store fronts in any city. The money is not being spent on faith alone. But the average merchant is inclined to feel that he is leaving a good deal to this faith. He would like to see proof. He can.

A retail shoe merchant in a western city was talking to a friend one day about the cost of his window lighting and the amount he had invested in equipment. He wondered how much business it was bringing him and how much profit it paid. "Why don't you test it?" asked the friend, and he suggested a plan.

That night the merchant left his window shades up and darkened his store. He ate his dinner early and by seven o'clock had taken his position in a comfortable chair, where without himself being seen, he could watch the crowd pass and count the number of people who were attracted by the window. He kept tally on a pad and made entry in separate columns, as far as he could, covering those who merely looked in the window as they walked by, those who stopped to look and those who stopped to discuss the display. This included men, women and children old enough to represent possible purchasers.

He did this on two Saturday nights when the weather conditions were practically identical. The first night the lights were on bright and the window dress was good. The second night the arrangement of the window was the same, but all the inside illumination was turned off. The street

lights shed enough glow, however, to make everything clearly visible.

The results of this test were interesting and conclusive. The first night showed a mass of figures. The second scarcely any. So the merchant took the record of the first night, which was normal in every way, and on the

GREENE & DANIELS MFG. CO.



PAWTUCKET RHODE ISLAND, U.S.A.

March 28, 1910

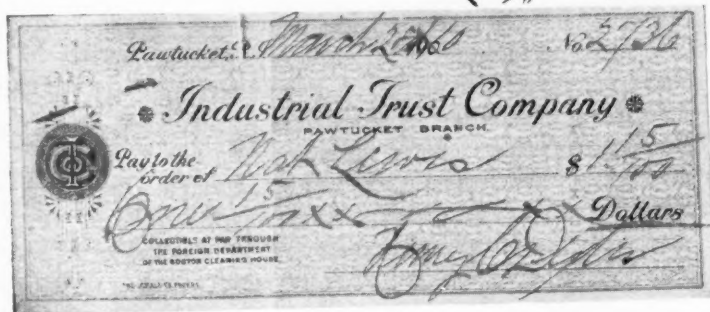
Mr. Nat Lewis,
25 West 42nd St.,
New York, N.Y.

Dear Sir:

Enclosed please find check for \$1.15 in payment for two four in hand ties, 55¢ each and 5¢ for postage. They were in a triangular glass showcase in front of your store. The ties alluded to were, one black with sort of a silver stripe in it and the other dark green with a red stripe in it, exactly the same design with different color effects. They were both on the middle shelf and the black tie was on the middle shelf between two other ties and the green tie was upon the same shelf upon the opposite corner. There can be no mistake as to the ties alluded to but if there should be any doubt you can return the check.

Respectfully yours,

Samuel Dyer



By Courtesy of The Edison Monthly

This Letter and Check Speak Well for the Advertising Value of Good Show-Window Lighting

(Six)

basis of his window investment and the monthly lighting bill, figured what it had cost him that night to engage the attention of each person who had inspected his window. The comparison between window advertising and other forms of publicity was interesting.

People like to see the goods themselves, and the desire to possess is one of the strongest of human traits. When we see in a store window a hat, a pair of shoes, or a scarf that makes a strong appeal, we think of it a dozen times before bedtime. Next morning we pass that way again and another look does the trick.

The letter and check reproduced here tell another story. In this case

What Makes the Window Expensive?

How the Character of the Window Influences the Cost of its Illumination

It rests largely with the merchant whether his window lighting shall be economical or expensive; whether it shall represent efficient advertising at a low cost or an indifferent display with a big bill for current. It is just as foolish to overlook the saving which may be effected by the proper treatment of the illumination as to disregard the value of displaying the goods after eight o'clock.

If the cost seems high, see if the trouble lies in the lighting equipment or in the window itself? Is



A Window with Dark Trim that Requires 20 Watts per Square Foot for Satisfactory Illumination

a stranger from Pawtucket was attracted by a New York window and took the trouble to send for the ties. It happens night after night, week after week, though few people write letters that mark the sale. But we are all window shoppers, every one of us, and it is the bright, cheerful illumination that draws our eyes, our desires and the money out of our pockets.

all the light being utilized or does the character of the window make it expensive to light?

Naturally the brightest, most strongly attracting window on Broadway, New York, will require a greater intensity of illumination per square foot of floor surface than the brightest window in a city of ten thousand, where the prevailing standard of

illumination is not so exacting. But most depends on the window itself, for the color and finish of the walls, floor and ceiling and the nature of the goods displayed determine the quantity of light required. Dark colors absorb a very large percentage of all the light that falls upon them, while light colors reflect light and therefore can be brilliantly illuminated in a window that would look dingy were the walls finished dark and dark goods displayed.

Such intensities of illumination are measured in terms of watts per square foot, and over 15 watts is seldom required for window lighting, 8 to 10 watts per square foot being a fair average. The results of a long series of tests were recently reported to the Illuminating Engineering Society, showing that the reflection due to light walls and light ceilings increased the illumination of a room to double the value obtainable with the same lamps if the room was papered with very dark wall paper. The bearing that this has upon window lighting is graphically illustrated in the case of a jeweller in the heart of the shopping district of one of our large cities. He finished his windows in mahogany and covered the floor with dark plush cloth. The window was a marvel of richness and elegance, but although lamps were installed to the extent of 15 watts per square foot the amount of illumination was not sufficient to give his displays the sparkle that sells jewels and cut glass. The plush and dark wood absorbed light like a sponge and it was not until 20 watts per square foot was installed that the lighting became satisfactory.

That same mistake is needlessly taking money from a good many tills in every city, for it is one of the most common causes of high light bills. Install high efficiency lamps equipped with the proper reflectors to give you the most economical light just where you want it. Then be careful that you utilize that light to best advantage.

Harmony In Lighting

Display Window Lighting Should Fit Its Environment

A certain great shoe manufacturing concern, with many retail stores throughout the country, makes it a part of their business policy to have each store exactly fit its environment as regards lighting. Thus they maintain a dignified little shop in Boston, the lighting of which is a model of restraint and good taste; while their Broadway store, located in the very centre of the "Great White Way" is a garish blaze. The whole idea of both stores is to fit the lighting to the environment and meet the competition of adjoining merchants.

This is a most important consideration. A window which might appear well lighted if located on a side street, is dingy by comparison with the brilliant illumination of a popular thoroughfare. Many merchants who move from one location to another fail to realize this and as a result they blame the electric light company for something which is not the company's fault. They forget that the competition in lighting is like the competition in merchandise and equipment—a never-ending struggle for supremacy.

But while the man on the brilliantly lighted street must "take his medicine" and install an abundance of light, the less favored merchant on a comparatively dark street can get excellent results at little cost. A few modern high-efficiency lamps carefully placed and properly equipped with the right sort of reflectors will work wonders in suburban stores or elsewhere off the main-traveled way. It is all a matter of environment.

One thing, however, must be remembered: Better have more light in the window than you actually need, than not enough. By making your window brilliant you make it dominate the street and put it beyond the competition of your neighbors. By installing an adequate equipment, you force the other fellow to follow your lead—you are never in the position of being "a trailer."

Window Reputation

The Value of Fresh Displays and The Influence of Motion

Probably the down town district of New York City is the one hardest place for a small show window to make itself heard. It is not a shopping centre, and the crowds on the street are business men and office employees, rushing to their offices or to lunch or back from lunch or home. The sidewalks are narrow and congested, there is no room to stand and look at anything. Yet on Broadway and Cortlandt Street is a little store whose window displays are watched and commented on by thousands of

work. For unless it contains some article that he covets, after a person has once seen a window he is not liable to look it over again. Therefore, the display must change constantly if it is to hold his interest and establish a reputation *in his mind* which will result in his looking at that window every time he passes by—which means business. He must see something new at least every week that will merit his attention.

It is not hard to make the windows attractive if it is studied with enthusiasm and planned ahead. One of the most powerful and unfailing aids is motion. Hitch a little electric motor to it and make it turn round. Let an



An Illustration of the Effect of Shading the Light Sources. The Front Window Display is Much More Impressive

busy people. They sell nothing inside but fountain pens, but those windows keep the clerks busy.

Fountain pens are not necessities. We don't have to buy them as we do shoes; they don't look particularly impressive in a window. The whole secret of the Waterman windows is this—they are always interesting; they always have been interesting, people expect that they always will be interesting and they watch them. They have a reputation.

There is one point about window advertising that is not true of printed publicity or even the sign—it can build up a reputation and sustain the public interest forever, if it is ever at

electric fan blow on it to make it sway. Use the heat waves from a large hidden lamp. For there is nothing that attracts the eye, arouses the curiosity, holds the interest and makes talk like motion in a window display.

Something new—something different—motion. There you have the combination, and with proper window illumination it will stand out and talk to every man, woman and child who travels the street. A window reputation is an asset that need never depreciate—all it costs is consistent enthusiasm and care in the display, backed by good illumination and a good sign to point the way.



MEFCO REFLECTORS

"Kind to the Eyes"

The Mefco Reflector has been designed with the idea of combining artistic appearance with high efficiency. Mefco construction consists of a pure white glass reflecting surface, plated on the outside with a delicate shade of pale green glass and is blown (not pressed) in a particularly artistic form.

Mefco Construction

This outside color when illuminated by a Tungsten Lamp, changes from a delicate green to a pale primrose tint which is very cheerful and *restful to the eyes*.

The Mefco will not collect dust, harmonizes with interior decorations and gives maximum reflection without glare.

Send for descriptive folder.

H. G. McFADDIN & CO.

43 Warren St.,

New York City



This System of Window Lighting is Apparently Designed to Prevent One's Seeing the Goods

The Engineering of Window Lighting

A Few Suggestions to Make the Windows Sell More Goods

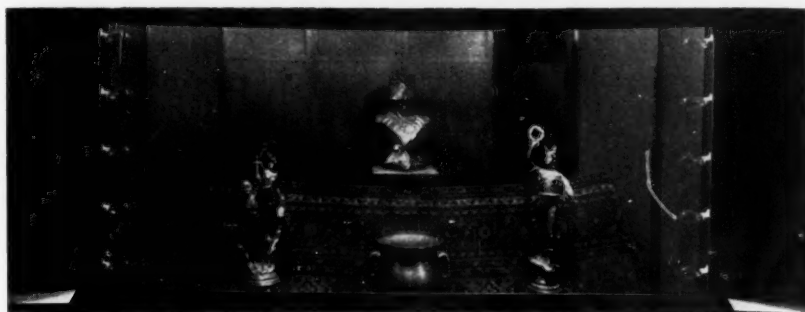
It is not a difficult matter to illuminate a window so brightly that it will attract attention—that is chiefly a question of installing enough lamps. The real problem in window lighting is the one of showing off the goods to their best advantage. So the question to ask is not "How *many* lamps ought I to install?" but rather "How shall I place my lamps to give the best illumination on the goods?"

Lamps so placed in the window as to shine directly into the customer's eye have a tendency to partially blind him, and lessen the ease with which he can see the display. The reason for this is the same one that explains the fogging of the plate in a camera when a picture is taken toward the sun. An excessively bright light blots

out many of the details of the picture that otherwise would be shown, just as the closing of the pupil of the eye in the face of bright light has an effect of lessening the ability to see.

The photographs will make this still clearer. The first picture shows a window which is lighted by ten lamps arranged as border lights, while the second shows the same window with the same goods displayed under the light of two somewhat larger lamps. The first window is supplied with nearly twice the amount of light as the second, yet the goods can scarcely be distinguished. Surely the futility of window lighting with exposed lamps is evident from these illustrations.

If lamps for window lighting are to be concealed from the man on the sidewalk, the best place for them is in the top angle of the window near the glass front. Of course, reflectors must be used to throw the light upon the



All the Light is Thrown on the Goods Displayed. The Sign Above Stands out Clearly

Did Your Christmas Window Sell Goods?



Of course it did. It was probably your best holiday salesman ---best because it called people in from the street and made sales that would otherwise have gone to your competitor.

Now, Why Not Make Your Window a PERMANENT "Best Salesman?"

You can use Franklin "MAZDA" Lamps to light your window all the year at very little expense.

Franklin "MAZDA" Lamps save current. They give a brilliant, white, color-true light that makes the goods in your window stand out in strong relief.

If you have been in the habit of lighting your windows only on Saturday nights or during holiday season, write us and we will tell you how you can keep the lights burning every night at little cost.

The Franklin Electric Manufacturing Company

HARTFORD, CONNECTICUT

FACTORIES: Hartford, Conn., and Middletown, Conn.

New York

Buffalo

Philadelphia

Baltimore

Elkhart

St. Louis

Seattle

Los Angeles

San Francisco

Atlanta

Louisville

goods, and the reflector must be suited to the window. Reflectors control light much as a nozzle controls water. Some are made to throw a strong concentrated beam in any direction, others give a broad, less intense distribution of light over a large area, just as you control the stream from the garden hose.

Note on page 9 the view of a row of windows in one of which a trial installation has been made to show how much better the window can be illuminated, with scientific lighting. The same quantity of light is used in each, but in the window at the right the lamps are concealed and holophane steel reflectors throw all the light on the goods, while in the window at the left reflectors not suited to the work throw most of the light on the ceiling and through the upper portions of the glass.

Lamps placed at the top and front of the window may be concealed by painting an opaque band around the top of the window. The band should be from eighteen inches to two feet in width and may have translucent letters let into it. It will thus serve for a sign both by night and by day. A more elegant method for concealing lamps is the use of an artistic drapery, or of a dull wooden lattice work backed by dark cloth.

Ten years from now there will still be poorly lighted windows. But they will not be the windows of successful stores. The merchant who realizes now the advertising value of a well-lighted window, and puts a little time upon the design of the lighting—concealing the lamps, using the proper reflectors and enough lamps to make the window attractive—will gain a lead over his competitors that can never be overcome.

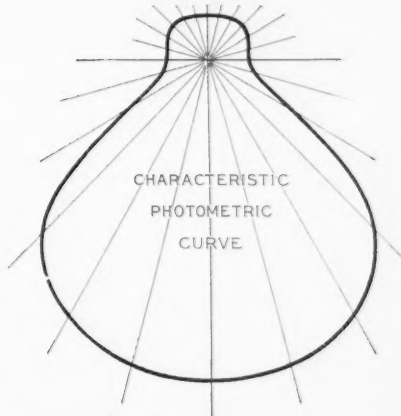
OPALUX

"THE GLASS WITHOUT THE GLARE"

THE REFLECTOR



THE RESULT



NARROW ANGLE OPALUX REFLECTORS for Window Illumination produce a soft yet brilliant concentrated light where you want it.

At your Dealers or

THE OPALUX COMPANY, 258 Broadway, New York



*An Electric Sign Brings People to Look at Your
Display Windows, just as the Windows
Beckon Them into Your Store*

VALENTINE Electric Signs are ADVERTISEMENTS. They bring trade to your store: they put profit in your till.

Here is good example of VALENTINE originality—a living, moving, attention-compelling advertisement. The man tips his hat every three seconds. The name flashes on and off. Nobody within three blocks can pass it at night without a second glance. It not only marks your location—it actually sell goods for you. And it's cheaper—\$375.00 complete, ready to hand.

You *need* a sign like this in your business. No matter what your business is, VALENTINE will make you an original, distinctive, INDIVIDUAL sign—a sign that will sell goods for YOU.

Sketches and estimates free.

VALENTINE ELECTRIC SIGN COMPANY, Atlantic City, N. J.

OUR
ILLUMINATING ENGINEERING DEPARTMENT
AT YOUR SERVICE
WITHOUT CHARGE

WILL FURNISH
PLANS AND SPECIFICATIONS
FOR THE
SCIENTIFIC ILLUMINATION
OF YOUR
STORE, OFFICE or BUILDING
SHOWING
SCIENTIFIC LIGHTING UNITS
SCIENTIFICALLY DISTRIBUTED

PRELIMINARY SPECIFICATION BLANKS FURNISHED
UPON APPLICATION



Mazdalier Lighting Units

are shipped, folded, wired and assembled, ready to be attached to your ceiling, with cost of installation reduced to a minimum.

The units being made in a varying number of lights, and with any required lengths and spreads, are immediately adaptable for all cases of commercial installation.

THE TUNGSTOLIER COMPANY
CONNEAUT, O.

NEW YORK

DALLAS

TORONTO



Mazda
Lamps

this store can be lighted ~ like this one
on the same consumption of current



Each General Electric Mazda lamp is securely packed in an individual carton, which is imprinted with the size, style, and voltage rating of the lamp.

To insure a ready means of identifying the "Sun's Only Rival" the package, as well as the lamp, carries the famous G-E monogram.



Your store windows can be the most attractive in town. The *brilliantly* lighted store has distinct trade-pulling and trade-keeping advantages over all poorly or mediumly well lighted competitors.

Increased brilliancy no longer means increased lighting bills. G-E MAZDA Lamps give from two to three times as much light as the old style incandescent bulbs—*without* any addition to the monthly electric light bills.

Therefore leading stores everywhere are already using or installing these new lamps. In some of the larger cities hundreds of thousands of G-E MAZDA Lamps are used in the leading stores.

Ask your lighting company today how the lighting of your store can be improved. You incur no obligation in asking and the information will be worth a great deal to you even if you are not now planning to change your present form of lighting.

General Electric Company

Schenectady, N. Y.

(Sixteen)

2893



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Eastern New York Section N. E. L. A.

Plans have been recently perfected for active work on the part of the Eastern New York Section of the National Electric Light Association. Although the territory included by this new geographical section of the national body has not yet been closely defined by the national committee, it is probable that the section of New York State between Poughkeepsie and Syracuse will be included, with Plattsburg as the northern limit. Being the geographical center of the territory covered and the home of the General Electric Company, with so many men prominent in the commercial phase of the electrical industry, Schenectady was a logical choice as headquarters.

The first general meeting of the season was held at Schenectady on December 13th. A large gathering of men from the cities and towns of Eastern New York were present to welcome President W. W. Freeman and Secretary T. C. Martin of the national body, the principal speakers of the evening.

The Eastern New York section already has 140 members, and it is certain that the membership committee, of which W. E. Brown of Schenectady is chairman, is making an active campaign among the central station men in the large and thriving towns and cities of Eastern New York.

The officers of the new section are: President, Mr. B. E. Morrow, Hudson River Electric Power Co., Albany, N. Y.; Vice-President, Mr. M. O. Troy, General Electric Co., Schenectady N. Y.; Treasurer, Mr. T. A. Kenney, Hudson River Electric Power Co., Albany, N. Y.; Secretary, Mr. R. H. Carlton, General Electric Co.

J. S. Maltman Leaves Kankakee

Mr. J. S. Maltman, who for several years has been manager of the Kankakee Electric Light Company Kankakee, Ill., has resigned to accept the position of electrical engineer with the Robertson Engineering Company, of Baltimore, Md.

Byllesby Co. Convention

The second annual convention of the managers and department heads of H. M. Byllesby & Company and affiliated companies will be held at the Congress Hotel, Chicago, January 17-20 inclusive. Byllesby & Company which has headquarters at Chicago, operates and manages a considerable number of electric, gas and street railway properties in the west and south. Since the first convention held last year, several properties have been added to the list and the former attendance of 200 will be largely increased. At a recent meeting of a committee of managers preliminary arrangements were made for a four-day's program to be devoted to technical and professional subjects. It is the belief of President Byllesby that the annual meeting and interchange of ideas among managers and department heads accomplishes much towards improving the service offered the public in the various cities where utilities are operated by this organization.

Changes in Susquehanna Properties

Mr. B. M. Kaltwasser, for sometime commercial manager for the Colorado Springs Lt. Ht. & Pwr. Co. has been appointed general manager of the Lockport Light, Heat & Power Company, Lockport, N. Y., to succeed Mr. O. M. Dial, resigned.

Mr. C. A. Sunderlin, formerly special representative for the Colorado Springs Lt. Ht. & Pwr. Co., has been appointed manager of the commercial department of that company.

Mr. W. C. Duncan, formerly manager of the new business department of the Pueblo Gas & Fuel Company, Pueblo, Colorado, has been appointed manager of the commercial department of the Leavenworth Light, Heat & Power Company, Leavenworth, Kansas.

R. I. Jones Goes to Lewistown

Mr. R. I. Jones, formerly a member of the commercial department of the Allegheny County Light Company,

Pittsburg, Pa., and later salesman for the Excess Indicator Company at Altoona, has been appointed contract agent for the Lewistown District of the Penn Central Light & Power Company of Altoona.

Vehicle Association Plans National Publicity Campaign

One of the most complete and comprehensive plans for the further development and extended use of the electric vehicle has just been launched under highly auspicious conditions. The movement is under the auspices of the Electric Vehicle Association of America, which has appointed a publicity and advertising committee for the purpose indicated.

Mr. N. F. Brady, first vice-president of the New York Edison Company, is the chairman of this committee, which includes in its membership the following men of the very highest standing and influence in the electric lighting industry.

N. F. Brady, Samuel Insull, J. B. McCall, C. L. Edgar, W. W. Freeman, Charles R. Huntley, Alexander Dow, George H. Harries, Samuel Scovil, F. W. Frueauff, H. M. Byllesby, J. G. White, A. H. Ford, T. N. McCarter, Thomas Dolan, R. F. Pack, Arthur B. Lisle, Marcy L. Sperry, R. M. Searle, John B. Miller, John A. Britton, Alton S. Miller, G. W. Brine.

This committee held a meeting Saturday morning, December 3d, in New York, at which it was decided to undertake a publicity campaign along broad national lines, and that in order to make such a campaign effective on the scale contemplated, it would be necessary to expend a minimum of \$50,000 annually for at least three years. The general idea is to utilize the magazines and trade papers of national circulation. Practically half this amount was subscribed by those present at this meeting.

A sub-committee was appointed to present the matter to all those interested, and solicit subscriptions.

This sub-committee held a meeting immediately after the general com-

mittee adjourned, and decided to begin at once the solicitation of subscriptions from central stations on the basis of 1-25 of 1 per cent of the gross income of each company. It was felt that this would give all the electric lighting companies a definite basis of subscription in proportion to the benefits to be received from such a campaign.

The well-founded expectation is that the total amount of subscriptions from central stations will be substantially duplicated by the manufacturers and others interested in the sale of apparatus.

Central Station Insurance

At the St. Louis meeting of the National Electric Light Association statistics were presented by Mr. W. H. Blood, Jr., insurance expert of the association, tending to show that fire insurance premiums paid by the electric lighting companies of the country are fully twice as high as the low ratio of loss would warrant. Resolutions were adopted by the association, asking for an investigation of the subject by the fire insurance companies and directing that copies of the resolution be furnished to member operating companies so that they might take up the matter with their brokers. A thorough campaign along these lines has recently been organized as fitting at this season of the year, and large numbers of copies of the resolution have been placed in the hands of the operating companies, requesting them to bring the matter to the attention of their insurance brokers. Letters have also been written from association headquarters to some two hundred and fifty insurance companies calling their attention to the matter and inviting them to investigate the subject with a view to a reduction in rates commensurate with the premiums received and the risks involved. An extremely interesting report and analysis of the subject generally was presented at St. Louis by Mr. Blood and been reprinted in the annual proceedings of the association.



The Manufacturers



A New Electric Range

The new domestic electric range recently perfected by the General Electric Company is a decided advance in the right direction. It is patterned after the ordinary gas range, and cooking can be done with it as quickly as with gas or coal, due to the fact that the heating elements are made of calorite, a wonderful new alloy discovered after years of scientific investigation.

There are three disk stoves on the top of the range, designed to be used in the same manner as the burners of a gas range. A turn of the snap switch

turns on the heat instantly at full intensity, while another turn cuts it off, and so permits the elimination of any expense for current when the stove is not actually in use, without incurring a delay in getting it into operation again. The two larger stoves are provided with a switch which admits of a three-heat regulation, thus making it possible to get a low, moderate or high heat as conditions may require. The three stoves permit cooking one, two or three things at once.

The combination oven and broiler is commodious, being 18 inches by 18



inches by 12 inches, and ample for the needs of a large family, and is provided with heating units at both top and bottom. By removing the ceiling plate of the oven, the top heating element of the latter is exposed and may be used as an overhead radiant broiler, or for the purpose of producing a pronounced browning of pies, biscuits, or roasts. The ceiling plate can be used as a shelf to support the broiling pan at the proper distance below the heating element. The slide supports on the side of the oven permit vertical adjustment of the broiling pan and oven shelves, and also the use of several shelves at once. The broiling pan (which is furnished with the range) is also suitable for use as a roasting pan. Printed instructions accompany each range, and tell what "heat" to use and how long to leave it on to bake or roast the various kinds of meat, bread, cake, pie, etc. The stoves, broiler, and oven, all have independent controlling switches. It is not necessary to use a thermometer with this oven, as the temperature attained at the various positions of the switch for the intervals of time stated in the instructions accompanying the range, will be best suited for each individual case.

The space between the stove top and the oven is heated indirectly from the oven, broiler and stoves, and so makes a convenient plate and food warming closet.

To increase the usefulness of the range two additional outlets are provided for individual electrically heated devices; one being an outlet for a percolator, etc., of one heat and not over 600 watts, the other an outlet for a grid or other three-heat electric device, a three-heat switch being mounted on the range for its control.

The equipment of the range is as follows:

Two 8-in. disc stoves, 375-1500 watts; 3-heat switch.

One 4-in. disc stove, 500 watts, 1-heat switch,

One Broiler, 1600 watts; 1-heat switch.

One Oven, 575-1150-2100 watts; 3-heat switch.

One Warming Closet (indirectly heated).

The circuits to each part of the range are separately fused by a double pole fuse block, while a main fuse of 60 ampere capacity protects the entire range. The wiring is arranged for either two or three-wire connection.

The range is of sheet metal construction throughout, made in a workman-like manner and finished with nickel trimmings. The oven door is of the spring-drop style and is provided with a substantial and effective latch.

Speed Regulators for Small Motors

The many uses to which small motors are now being applied has brought about a need for small controlling devices, as very often it is desired to use these motors where variations of speed are necessary. The accompanying illustration shows a new six-inch speed regulator, a line of which have been recently put on the



market by The Cutler-Hammer Manufacturing Company of Milwaukee. The standard capacities of these devices range from one-twentieth to one-sixth horsepower.

They are adapted for many purposes, such as varying the speed of motors operating sewing machines, buffers, small blowers, washing machines, jewelers' and dentists' lathes and drills, coffee mills, adding and copying machines, etc. They are also

used as dimmers for lighting circuits up to their capacities, as small field regulators, in connection with plating lathes, and for controlling heating circuits, such as tire vulcanizers, etc.

The operation is by means of a simple sliding lever. Seven contacts are provided giving seven running positions, or these contacts can be arranged to provide one "off" point and six running positions. The resistance is moisture-proof and dust-proof, the resistor wire being wound on a porcelain core and imbedded in a special cement which encloses all portions. The diameter of this regulator is six inches, the depth of casting one and five-eighths inches, and the net weight two and one-half pounds, making a compact, convenient device.

Adjustable Window Reflector

The most desirable form of window lighting is produced by hiding the source of light from the street and throwing all of the illumination on the display. This effect is obtained in a new manner by a special tungsten adjustable window reflector made by

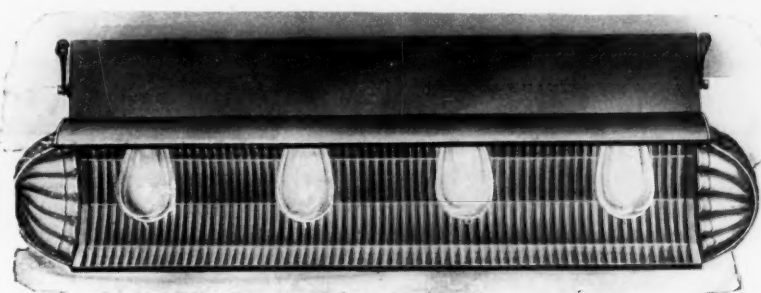
getting the best result from the lamps.

These adjustable window reflectors are made in any desired length, with lamps 6 inches or more apart, according to the illumination required. The reflecting surface may be either corrugated silvered glass or corrugated polished tin. The reflector illustrated is only one of the many forms adapted for tungsten window lighting manufactured by Klemm & Co.

Electric Heat in the Hat Factory

The Westinghouse Electric & Manufacturing Company has recently issued a very interesting pamphlet, showing the applications of central station service in a hat factory.

"In the manufacture of hats," it says, "power is required to drive the machinery; artificial light is needed for a portion of the year; heat is required for sizing, coloring and drying, and heated tools are necessary for the finishing processes. Electric motors furnish the most flexible means of delivering the power to the machines. Electric light is best for illuminating the workroom, and electric heat, for



Klemm & Co., 132 North Fifth Street, Philadelphia, Pa., and illustrated on this page.

The reflector is fastened to the ceiling by small brackets at the ends and placed as close to the front as possible. It can be adjusted to any required angle so that the most brilliant effect is possible over the entire display. The sockets and upper part of the lamps are concealed by a channel at the top, leaving only the filaments inside the reflecting portion and

the finishing processes, presents unequalled advantages as to cleanliness, convenience and reliability.

"An electric heater can be arranged to provide any temperature obtainable with gas-heated apparatus. It is not affected by air drafts and does not fill the workroom with soot. This cleanliness is of particular importance in the manufacture of straw or light-colored felt hats. By its use, the fire risk is eliminated, as there are no exposed flames. The worker is not exposed

to the hot, ill-smelling waste-gases, which rise from tools heated by the gas-blast, and the problem of ventilating the hat factory is greatly simplified.

"The favorable results, obtained through the adoption of electric heaters, are made evident, to those concerns which use them, by a very material increase in the output of the factory and by a reduction in manufacturing cost, while the cost of the heat required per unit of the article manufactured is decreased. The productive capacity of both skilled and unskilled labor is increased and the conditions of the operatives greatly improved wherever flameless heat is adopted."

Interesting data is given on a large variety of electrically operated apparatus used in the making of hats, and manufactured by the Westinghouse Company. This includes hand shells, machine irons, velouring stoves, shackle stoves, hand shackle, ovens, press heads, curling machines, flanging bags, brim heaters, hand flats, glue pots, etc., and gives the central station salesman valuable ammunition for use in working for this business.

Great Electric Delivery Service

The recent electric delivery service installed by Gimbel Brothers of New York, shows a combination of hard-headed business economy, progressiveness, and a keen appreciation of the advertising value of swift, sure and silent delivery. Their initial installation covers a total of 66 vehicles, 36 of which are for small package delivery, and 30 for heavier service, ranging in capacity from two to five tons.

The entire line of vehicles was built by the Studebaker Company, and all are equipped with Westinghouse motors, controllers, main switches, charging plugs, and receptacles. The motors for the package delivery wagons are known as the Type V-20-A motor rated at 31 ampere, 50 volts, 1250 rpm. From this size the motors increase in size to the store truck, which is equipped with two type V-30 motors rated at 80 volts, 35 amperes, 800 rpm.

All motors are series wound, and all are provided with ball bearings. The vehicles are equipped with Westinghouse continuous torque metal drum series-parallel controllers, giving five speeds forward and five reverse.

Electric vehicles have now been in service long enough to pass the experimental stage and to demonstrate their great superiority over horse-drawn vehicles and other tractors, especially for service in congested districts. From standpoints of economy, speed, reliability under all conditions, durability, cleanliness, in fact from almost every conceivable standpoint, the electrically driven delivery wagon has much the advantage.

The Gimbel Brothers' great store now has a delivery service second to none in New York City and probably to none in the world. The advertising value of these handsome vehicles traversing the streets of New York and the surrounding cities, towns and country is incalculable. The owners are prepared under all conditions to give reliable and satisfactory service, which the purchasing public will surely appreciate.

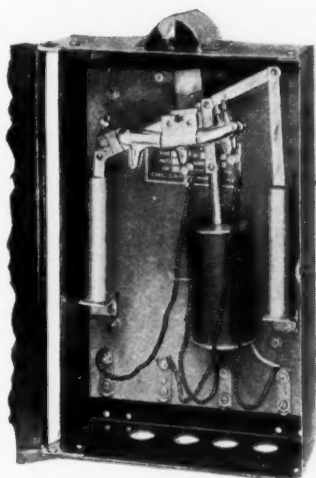
A Motorless Flasher

A motorless sign flasher that gives close adjustment of speed and can be used on any size sign is illustrated herewith. The break is made in an exhausted glass tube attached to a rocker arm and containing a quantity of mercury which slides from one end of the tube to the other as the arm oscillates. The ends of the arm are attached to dash pot plungers, which gives a slow and uniform motion to the tube.

The arm is operated by a solenoid in shunt with the mercury tube, and the motion is produced by making and breaking the circuit at the adjustable mercury tube contacts near the pivot of the rocker arm. By raising or lowering the screws shown near the centre of the rocker arm, the period of the flash can be changed within wide limits which can be still further in-

creased by changing the viscosity of the liquid in the dash pots.

As the contacts which break the main current are in a vacuum, there is no danger from burn-outs or corrosion, which does away entirely with renewals. For three-wire work and for large capacity, two or three mer-



Single Flasher, Two Circuits

cury tubes are used, and very large installations can be handled with safety. In the standard forms the two-wire or three-wire flashers are made in various sizes up to fifty amperes capacity maximum, and the double flashers to operate on a two-wire system for double-faced signs are made in various sizes up to 37 amperes maximum on each switch, or a total of 74 amperes on the entire sign. The manufacturer, Mr. Emil Hoh, 220 Atlantic Avenue, Brooklyn, N. Y., has already placed a large number of these flashers in satisfactory operation.

The flashers are shipped complete in a heavy wrought iron box ready for connecting up to signs.

Submarine Electric Searchlight to Help Raise the Maine

Orders have been issued by the Navy Department calling for the construction of several submarine electric

searchlights enlarged and improved from the original designs under direction of the inventor, Frank G. Hall, of the Sheffield Scientific School of Yale University.

The lamps have been designated the "Yale Submarine," and as delivered to the bureau of construction and repair at the navy yards at New York and League Island comprise a new high-power equipment for placing them in immediate daily operation from the deck of the lighter moored for the use of the divers at the wreck of the "Maine." The electric current is available from the Merrit-Chapman lighter (which has its own electric plant) under charter to the Government.

The United States battleship "Maine," which is now about to be recovered from Havana harbor will be examined most carefully in the raising of those portions of the hull blown apart supposedly by a submarine ground mine originally placed as a harbor defence and over which the "Maine" was supposed to have been anchored. Representatives of Spain and Cuba have been reported as interested watchers of the salvage operations, and this government is most anxious that it may be truly said that every precaution was taken to determine the cause of the disaster. To that end the Yale submarine electric searchlights will be used to aid the divers in making minute examinations of the wreck.

The invention consists of a powerful electric arc lamp, completely enclosed in a heat radiating, water-proof casing, so ingeniously devised as to burn continuously under any depth of water without cracking the glass globes. The lamp illuminates a large area under water as bright as day. At the request of this and some foreign governments, several of the lamps have been constructed in the neighborhood of the navy yard, in Brooklyn, through the co-operation of the inventor. These have been put in use at the chief navy yards of the United States, England, Italy, France,

lighting fixture, and is so constructed that the fixture will always remain level, as its name implies. The canopy holding the reflector hangs from a



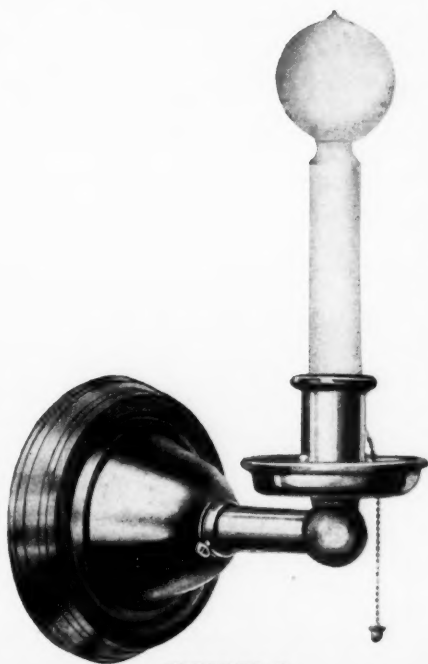
swinging joint, and even though the strain on the lead-in wires may pull the break-arm and insulator out of alignment it will have no effect on the reflector. The fixture is designed for either series or multiple work.

WANTED—General sales manager, with a wide and extensive experience both in building up and conducting a sales organization, in the general conduct of marketing electricity and appliances, will consider a proposition of merit from a reputable company desiring the services of an executive of ability, personality, and integrity, thoroughly qualified to produce results, and meet the requirements and exigencies of the above. Address "Sales Manager," Selling Electricity.



We cordially invite you to send for our new book, fresh from the press, on our scientific electric reading lamp, the G-M Lamp.

The Electric Motor & Equip. Co.
Newark, N. J.



DESIGN NO. D

WHEN YOU

are in the market for Lighting Fixtures, *makes no difference what kind*, let us know before making selection and we will be glad to furnish an estimate.

R. WILLIAMSON & CO.

Manufacturers of

**Electric and Combination Fixtures and
Art Glass Shades.**

Washington and Jefferson Sts. CHICAGO, ILL.

In writing to advertisers, mention "Selling Electricity."



2 Big Holophanes

The Holophane Company has ready for the trade two new

Holophane Standard Line Reflectors for 400 and 500 Watt Mazda or Tungsten Lamps

These Reflectors give the Extensive and Intensive distributions of light—just the same as the other Holophane Standard Line Reflectors.

You will find them indispensable in equipping high-class installations with the large lamps. Place a trial order today, so you will have a few in stock. Here is the data:—

No.	List price each	Standard quantity	No. in unbroken package	Approx. wt. unbroken package	Diameter		Height		Holder Inches	Code Word
					Inches	Cm.	Inches	Cm.		
E-500	13.00	8	4	5½	14½	35.9	8½	21.9	3½	kabz
I-500	13.00	8	4	5½	14½	37.5	8½	21.6	3½	kagz

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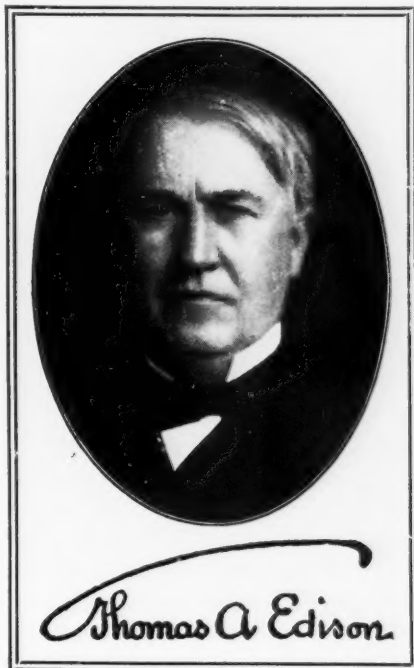
\$4.80—A Young Fortune BUT---

Right now you can swap it for the new life of Edison and a year's subscription to SELLING ELECTRICITY.

You know what T. Commerford Martin can do when he starts to speak—or write. He and F. L. Dyer have just written a book which is very worth while. The authors have been intimately associated with Edison ever since the genesis of electrical work as we know it and in "Edison: His Life and Inventions" they have given us the last word in comparative electrical history. (Published by Harper & Bros.)

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It's a New Year's Gift every central station man should make himself.



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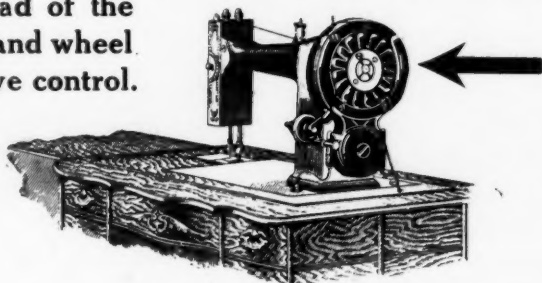
2 PROFITS FOR YOU

ONE PROFIT ON YOUR CURRENT
ONE PROFIT ON OUR MOTOR

We help pay the salaries of your solicitors. We reduce your cost of business-getting. We increase the profit of your appliance department.

But first a word about our motor:—

The Bissell Motor for sewing machines is sturdy, dependable, fool-proof. It fits the head of the machine in place of the hand wheel. It has simple and positive control. There is nothing in the way, nothing to get out of order. Examine it—that will convince you.



The co-operative plan under which we sell this Motor is a sensible time-payment-rental proposition. Our contract is the kind your customers will sign because it's fair and easily understood.

You invest practically nothing.

We do half the advertising. Our literature is non-technical, simple, convincing. It goes to the heart of women because it was written by a woman. Instead of a lot of bewildering engineering phraseology, we supply convincing sales arguments in print.

We really do half the selling. Because we have formulated a proposition which requires the minimum of effort upon the part of your sales force. Write for this proposition.

The Bissell Motor Co.

Toledo, Ohio

The Bissell Motor is the ideal "door opener." Customers who will not talk electric light to your solicitors are interested in the Bissell Sewing Machine Motor and we have a number of installations that directly resulted from the desire for these Motors.

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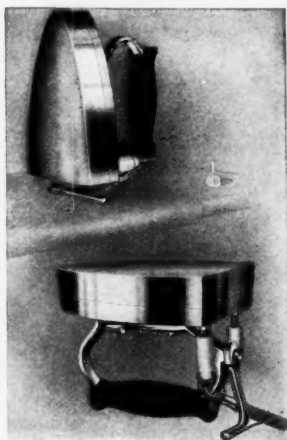
Cutler-Hammer Electric Heating Devices



Portable Water Heater
4-Qt. Capacity



Sleeve Iron—3 lb.
Detachable handle—Con-
venient for Travelers



Household Iron—5, 6 and 7-pound
sizes. Require no stand, also
stands inverted.

PERSUADING your customers to use electric heating devices is only one step toward building up a substantial and lasting day load. The devices you recommend, besides offering special conveniences, should be of simple and strong construction, adapted for various purposes, and be economical to operate.

Cutler-Hammer Electric Heating Devices

will help you gain new customers
and will also insure permanent,
satisfied customers

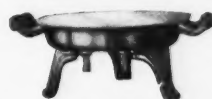
Portable Water Heaters

can be installed in the home, bar, drug store, restaurant, barber shop or wherever clean hot water is wanted quickly. For making hot drinks and for medicinal purposes they are especially suitable. They advertise central station service. One heater installed in a prominent place will sell many others.

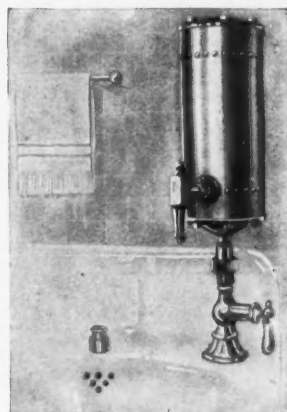
If you want an increased and permanent day load investigate the Cutler-Hammer line at once. Write today for our 32-page booklet, which contains complete descriptions and illustrations of all the devices.



Portable Water Heater
3-Qt. Capacity



Disc Stove
Useful for many purposes



Instantaneous Water Heater
Lavatory Type

The Cutler-Hammer Mfg. Co., Milwaukee, Wis.

NEW YORK: Hudson Terminal (50 Church St.)
PITTSBURG: Farmers' Bank Bldg.
PHILADELPHIA: 1201 Chestnut St.

CHICAGO: Monadnock Block
BOSTON: 176 Federal St.
CLEVELAND: 1108 Schofield Bldg.

PACIFIC COAST AGENTS: Otis & Squires,
155 New Montgomery St., San Francisco

In writing to advertisers, mention "Selling Electricity."



"New York" Flashers

Classed by Themselves. Built by Former Sign M'f'rs.

No Knife Switches to Stick.

No Carbons to Burn.

Ball Bearings---Oil once a Year.

Yes, We make the **COLOR CAP**

Cable Address
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and Private codes.

Betts & Betts

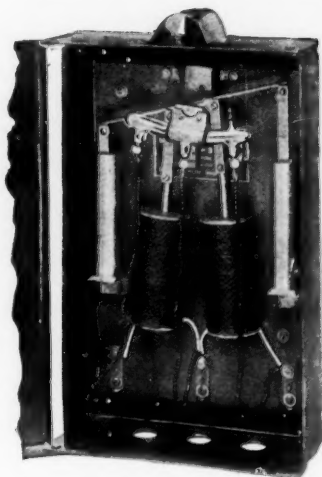
302-304 W. 53d St.,

New York, U. S. A.

THE "HOH" Motorless Flashers

Are the only perfectly successful Flashers, because
Contacts are in a Vacuum and cannot burn out
or corrode.

Flashes can be regulated, slow or fast.
Will not get out of adjustment.
Require no attention or renewals.
Complete in approved iron box.
They save half the lighting bills.



DOUBLE FLASHER

WRITE FOR CIRCULAR

EMIL HOH,

220 Atlantic Ave., Brooklyn, N. Y.



ORIGINAL COLONIAL DESIGN

HALLER SIGN WORKS, (Inc.)
704 So. Clinton Street, Chicago

Do not neglect to send for our
new 32 page catalogue, just out.
It shows many new and attractive
designs of small and large electric
signs. You cannot afford to be
without it and you can have it for
the asking.

In writing to advertisers, mention "Selling Electricity."

REGINA

Pneumatic Cleaners

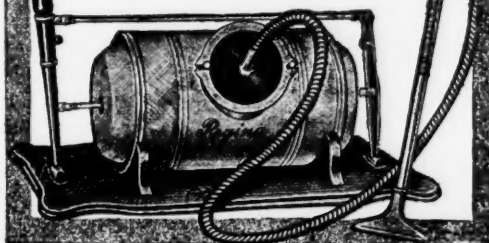


THE NEW REGINA PNEUMATIC CLEANERS

are by far the most perfect, most practical and easiest to operate of all vacuum cleaning machines and are the greatest labor savers ever invented. These up-to-date cleaners have double suction pumps and do the work in half the time and with half the effort used with single suction machines. Made in the Regina factory by skilled workmen and fully guaranteed. Light, neat, compact, powerful. Their cost is so very reasonable that no housekeeper can afford to be without one. Electric and also hand-operated models.

Write us to-day—while you think of it—for full particulars and let us tell you why you need a REGINA and how and where you can obtain one.

THE REGINA COMPANY, Dept A
Cor. Broadway & 17th St., New York
213 Wabash Ave., Chicago



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STANDARD OF QUALITY

Established 1828



2046 J

Ornamental Lighting Posts for all Purposes

SPECIAL TO CENTRAL STATIONS

We will be glad to co-operate with your New Business Department and submit special designs for Commercial Lighting Projects

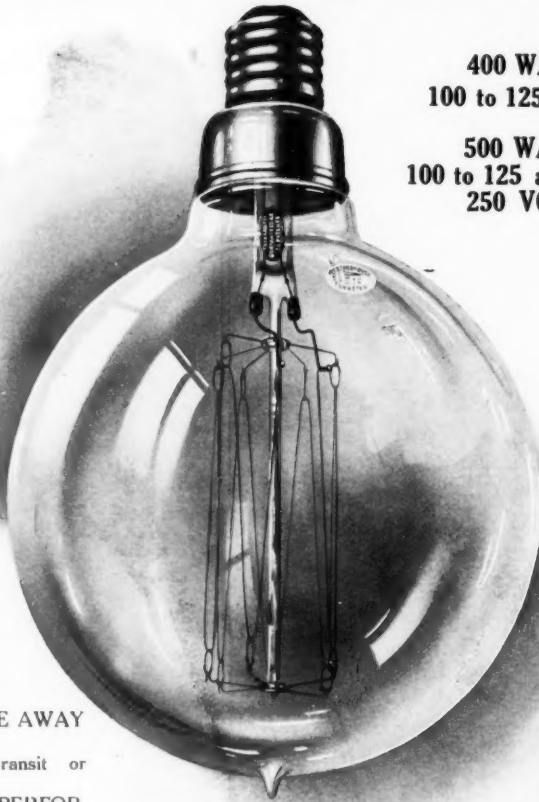
Send for our New Catalogue

The J. L. Mott Iron Works

118-120 Fifth Ave., New York



"Wire Type" Tungsten Lamps



400 WATT,
100 to 125 VOLTS

500 WATTS
100 to 125 and 200 to
250 VOLTS

(1.) FRAGILITY DONE AWAY
WITH.

No more breakage in transit or handling.

(2.) UNIFORM LIFE PERFORMANCE.

This means elimination of early burnouts.

(3.) THE WRAPPED AND
FUSED JOINTS.

Positive electrical contact insured with the flexibility to obviate the strain at this point occasioned by the old method.

(4.) WESTINGHOUSE "WIRE TYPE" CONSTRUCTION.

Has only 2 electrical connections. The old method requires from 10 to 12.

(5.) LATEST DEVELOPMENT IN THE ART.

At the same price as the old type 5 or 6 Hair Pin Filament Lamps.

Westinghouse Lamp Company,

General Offices
and Works

Bloomfield, N. J.

P. O. Box 128

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NEW YORK CITY

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WESTINGHOUSE ELECTRIC & MFG. CO.

Sales Offices in all Principal Cities.

In writing to advertisers, mention "Selling Electricity."



Motor Profits

Before Manufacturers spend much money for electrical equipment they want to know what interest they will make on the investment. This you can determine quite accurately for them before they invest a cent.

Anything that reduces their unit cost of production means additional profit and here is where

Fort Wayne Motors Prove their Superiority

We will be glad to furnish you with guarantee performance curves for any of our motors and if you will send us your customers' specifications our engineers will solve their individual problems and recommend sizes, etc. With this information you can easily figure out how much they will gain by installing electric drive in their plants. There are a great many advantages also on which it is hard to place a money value, such as cleanliness, convenience of locating machines regardless of power supply, ease of control, automatic operation, economy of floor space, elimination of belts and pulleys, increased safety and freedom from accidents to employees, more light and less noise. These points apply in general to almost all motors, but there are particular features about Fort Wayne Motors that make them the best purchase in the market. Anyway it will pay you to send for our Bulletin "Motor Drives." It's free.

FORT WAYNE ELECTRIC WORKS

"Wood Systems"

1603 Broadway, Fort Wayne, Indiana

Branch offices in most large cities



M19



DULL'S FLASHERS



FOR ELECTRIC SIGNS

will increase the sale of current;
will decrease the cost of current.

How? By reducing the cost of burning a sign the customer tells his neighbor, who puts up one upon the strength of the low cost.

Show a merchant that you can save him current on his sign and he will put more lights in his window, on the strength of the saving. That's human nature.

REYNOLDS DULL FLASHER CO.

152 FIFTH AVE., CHICAGO

In writing to advertisers, mention "Selling Electricity."



Simplex Electric Toaster

(with new "Keep Hot" rack)

Simplex Dining Room Sets, Coffee Urns, Chafing Dishes, Water Cups, Toasters, Travelers' Stoves, Heating Pads, Baby Milk Warmers, and Household Irons, are practical necessities for every well-equipped household. Display these devices, suggest them to your customers—it means more customers, new consumers and more sales for current.



Write for "Selling Helps."

SIMPLEX-ELECTRIC-HEATING-CO

Cambridge, Mass.

Monadnock Block, Chicago
612 Howard St., San Francisco

SIMPLICITY



EFFICIENCY

Do You Want A Demand Limiting Device which Meets Practical Conditions

**This One is Built by Men Who
Know What an Instrument of
This Kind is Up Against**

No Coils to cause drop in voltage or complications from frequency and power factor.

Only One Size to Carry in Stock

Accurate, easily handled and noiseless in operation.

**Low First Cost and Practically
No Maintenance**

Designed for use in combination with Watt Meters and thoroughly tried out on straight demand.

**A Post Card Today Will Bring You a Sample for
30 DAYS' PRACTICAL TRIAL**

Henry Thermo-Electric Co.
3 Scott Avenue
Newport, Vermont

In writing to advertisers, mention "Selling Electricity."

Don't Fail to See Our Exhibit

At the Electrical Show

CHICAGO,
January 7th to 21st



We will have the most complete display of laundry machines for the home ever shown.

HURLEY MACHINE CO.
CHICAGO NEW YORK

SOME TALKING POINTS THAT WILL SELL

Everson Cleaners

In YOUR City

Weight
35 lbs.

Price
\$80

- 1—Can be lifted by the little finger
- 2—Greatest effective suction
- 3—Safety valve to protect motor
- 4—1-6 H. P. Holtzer-Cabot motor
- 5—Indestructible vulcanized fiber case, non-conductor of electricity
- 6—No screws, clamps, or catches
- 7 etc.—On request

The Good Points of All
The Bad Points of None

Everson Mfg. Co.
30 Oliver Street

BOSTON, MASSACHUSETTS



In writing to advertisers, mention "Selling Electricity."

The Services
of
F. Laurent Godinez, E.E., ME.,
have been retained
by
The Central Station Development Company
in charge of their Lecture Bureau

Mr. Godinez, as an authority on the subject of Artificial Illumination, in all its phases, has established an international reputation as a public speaker on this subject.

His public Lectures IN THE INTERESTS OF THE CENTRAL STATION, have been unanimously characterized, by the press, as the acme of originality and realism in educational achievement. These lectures have received the unprecedented approbation of the public to an extent never even approximated in the past by speakers dealing with what is generally believed to be a "dry," scientific and uninteresting subject; yet in the face of this tremendous prejudice, Mr. Godinez has always succeeded in holding the undivided and enthusiastic attention of "full houses."

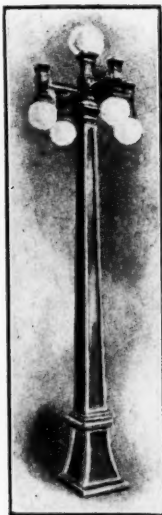
This success, aside from his broad, practical experience in the engineering problems of Illumination, has been attributed to the fact that his lectures are aimed directly *at the general public—not over their heads.*

MR. GODINEZ DOES NOT LECTURE IN THE INTEREST OF ANY MANUFACTURER—but for the Central Station in creating an interest and a demand by the public for THE USE OF ELECTRICITY.

There are a few open dates in Mr. Godinez' mid-winter tour, and his services, on these dates may be secured at a very nominal charge. Those desiring further information may obtain complete details by addressing

The Central Station Development Co.
F. Laurent Godinez, E.E., ME.,
in charge
Public Lecture Bureau,
506-518 Rockefeller Building
Cleveland, Ohio

WE WANT White Way Work



**Posts Poles
Brackets
and
Reflectors**

Send for Circular 19

This design adopted at

ELMIRA, NEW YORK

LANCASTER, PENN.

THE ELMER P. MORRIS CO.

The Outdoor Lighting Specialty House

94 West Street

New York City

The "IMPERIAL"

A Portable Vacuum Cleaning Machine combining efficiency, practicability and economy.
Can be attached to any electric light socket.



"The only High-Grade, Efficient Machine on the Market." Guaranteed. A Dividend Payer for Central Stations. Growing concerns and responsible parties wanted as agents. Exclusive territory given. Send for Catalogue and particulars. M'd in 2 sizes.

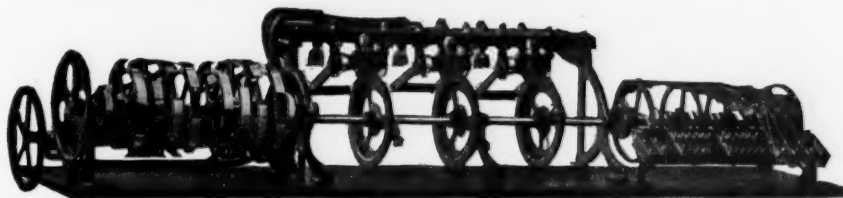
Price, \$100.00 and \$75.00 Complete.

EMPIRE VACUUM COMPANY,
112 West 30th Street, New York.

District Office: 702 Postal Telegraph Building
Chicago, Ill.

There's a Heap of Satisfaction

in having a Flasher that's dependable, trouble proof, self oiling, flexible and strongly built.
The RECO sells on merit alone.



All Types: Single, double, triple pole, spelling, chaser, fancy border, script, and for spectacular effects of every description.

Get our latest bulletins.

Reynolds Electric Flasher Mfg. Co.

Largest Manufacturers of Flashers in the World

Also manufacturers of Time Switches, Window Displays, etc.

New York Office
1123 Broadway

Factory and Head Office, 191 Fifth Ave., Chicago



The Ham Attachment

Most convenient
wiring device
brought out in
the last decade

For sale by all jobbers

Patented November 17, 1908

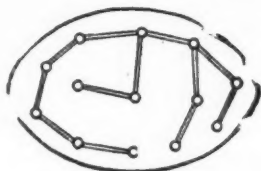
E. W. HAM,

5 Barton
Place

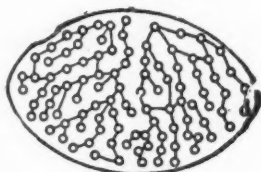
Worcester, Mass.

THIS ADVERTISEMENT IS WORTHLESS

unless you are willing to be shown



Cut No. 1.



Cut No. 2.

Cut No. 1 represents your residence lighting conditions at the present time.

Large investment in poles, lines and transformers, with an occasional installation here and there.

Our records, the census reports and electrical authorities agree, that the present proportion of houses using electricity for lighting to those who do not, is in the ratio of 1 to 10.

Cut No. 2 represents the improved conditions of residence lighting, due to the establishment of a controlled flat rate in connection with Mazda Lamps and **Excess Indicators**.

If your present residence conditions suit you, it is useless to argue the question further, but we are looking for broad-minded Central Station men who recognize the situation, and who are honestly willing to do their part to increase their business, revenue and profits.

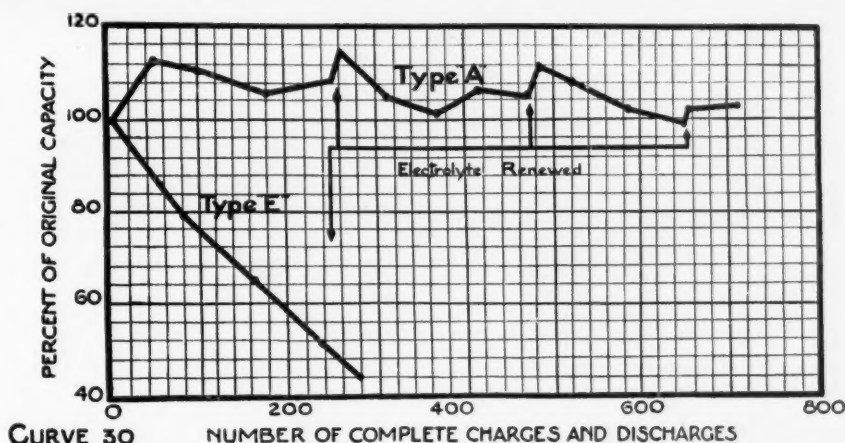
The improved conditions above referred to, have been obtained in every city now under contract with us, list of which, with details of results, will be supplied on request.

EXCESS INDICATOR COMPANY

241 West 42d Street

New York City

In writing to advertisers, mention "Selling Electricity."



This shows you the tremendous improvement made by Mr. Edison in Storage Batteries

Five years ago the Edison Storage Battery was better than any lead battery. Prominent firms like Hearn & Company's Department Store in New York, and Tiffany & Company, the jewelers, have some of this old type in use today after 4 and 5 years' service. The best of the old lead and acid storage batteries under the same conditions last a year or less.

The curves here shown are severe endurance tests. They are far more severe

than are ever met with in ordinary practical conditions.

Mr. Edison prefers to make his own experiments at his own expense—not at the expense of the consumer. He makes these tests hard enough to be sure.

Referring to tests: the old Type E, which lasted in practical use from 3 to 5 years, was charged and discharged 275 times under killing conditions. The battery then was far better than anything that had preceded it, but it did not suit Mr. Edison.

Now it does suit him. The top line shows why. Compare new Edison Type A with the old Type E!

Under the most severe conditions the new battery has been charged and discharged 730 times, yet its capacity is considerably above what it was when the battery was new, although under severe conditions it shows a mileage equivalent of 93,000 miles for a Pleasure Vehicle, if kept in good condition.

In practice and under less strenuous conditions the mileage actually obtained should be far in excess of that here shown—and the battery is better than the day the test was started, due to the gradual improvement in the active material.

This battery was charged and discharged continuously night and day. And after each discharge the battery was short circuited until entirely exhausted.

Without "resting" the battery and thus permitting the temperature to drop, the cells were immediately started on the next charge.

No other battery would stand the short circuiting test alone for 10 times without being completely ruined.

The Edison Battery has withstood all the severe conditions imposed by Mr. Edison 730 times and its capacity is greater than when it was new. Do you wonder that our legal guarantee of 3 years' life leaves us a sufficient margin of safety? This margin of safety is as good an asset to you as it is an insurance for us.

Light weight, rugged construction of steel and nickel and long life make the Edison Storage Battery just as reliable a piece of electrical apparatus as the electrical motor. They supplement each other, and together, for electric trucking or pleasure vehicles, will solve the problem. They both deserve, intrinsically and for purely selfish reasons of greater profit, the active and energetic support of every Central Station man in this country.

Edison Storage Battery Co., 123 Lakeside Ave., Orange, N. J.

In writing to advertisers, mention "Selling Electricity."



85,000 General Electric Mazda and Tantalum Lamps in 15 Buildings

Less than 25% of the artificial light used in any given community is electric light.

The field of profitable new business is enormous in extent and possibilities. The sign at the crossroads, pointing out the road that leads *through* this immense field of new business, is marked G-E MAZDA Lamps.

Already the G-E MAZDA Lamp has been the means of adding thousands of new customers, hitherto unreachable.

As this lamp becomes more popular, *electric* lighting will tend to become more universal.

If it is worth your while to double your lighting business, it is well worth your while to "push" the G-E MAZDA Lamp now.

This is a graphic example of the popularity of these lamps for building lighting.

In ten representative cities, New York, Baltimore, Pittsburg, Milwaukee, Cleveland, Chicago, Mobile, Los Angeles, San Francisco and Seattle, 135 of the leading department stores are equipped *throughout* with G-E MAZDA Lamps. In some stores, as many as 10,000 lamps are used. Gimbel's, the latest addition to New York's big department stores, is lighted by thousands of G-E MAZDA and Tantalum Lamps.

Enough G-E MAZDA Lamps have already been sold to place at least one lamp in every home in the United States.

Every advertising page of this issue of *Selling Electricity* could be filled with *bar lists* of large successful installations.

These examples are cited to call attention to a situation that is of vital interest to every central station manager.

General Electric Company,

**SCHENECTADY,
NEW YORK**

2688

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LBJe '14

1911

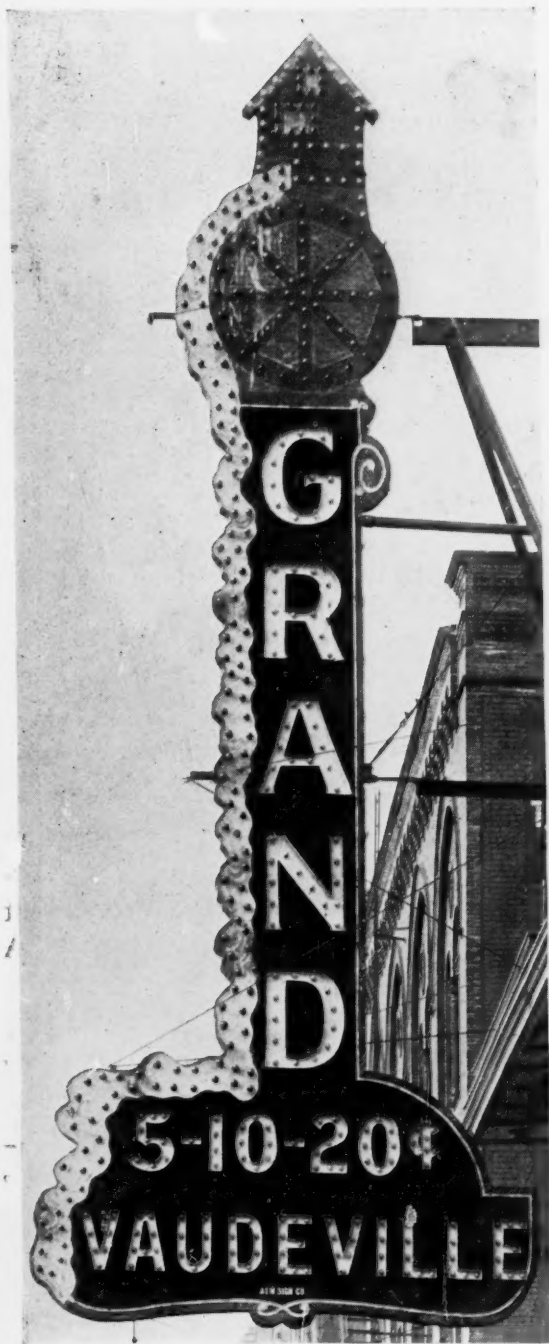
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Jan





Theatres, Picture-shows and Vaudeville Houses offer great opportunities to develop the sign builders' art.

We will originate Novel Designs for your local Amusement Houses upon request.

Send us the data to-day.

The Old Water Wheel revolves, water running down edge of sign, and words and figures flash separately.

Contains 850 lamps.

The
A & W
Electric Sign Co.
Cleveland
Ohio



500

Watt

Fixtures

Federal No. 636 unit, specially designed for 500 watt lamps, with 20-in. porcelain glass shade.

Brush Brass Finish.

Net to Central Stations
Without Lamp

\$6.93 Each

Write for Bulletin No. 230

Lamps

Admirably adapted for Theatres, Stores, Halls and Armories.

DATA

These Lamps are 8 inches in diameter, on 100-125 volts current consumption is only 1 $\frac{1}{4}$ watts per candle-power; average life, 1,300 hours.

The most brilliant and economical unit ever produced.

Write for Bulletin No. 239

FEDERAL ELECTRIC COMPANY

Manufacturers

Lake and Desplaines Streets

Chicago

In writing to advertisers, mention "Selling Electricity."

, 1911

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